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NASA CR-132684

A NUMERICALLY EFFICIENT FINITE ELEMENT HYDROELASTIC ANALYSIS

Volume II: Implementation in NASTRAN

PART II

by

Robert N. Coppolino

November 1974

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Bethpage, New York 11714

**Langley Research Center
Hampton, Virginia**



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

FOREWORD

The work described in this report was performed at the Grumman Aerospace Corporation, Bethpage, New York, and administered by the Vibration Section of the Structures and Dynamics Division, NASA Langley Research Center, Hampton, Virginia.

The work performed under NASA Contract NAS1-10635-21 with supplementary funding provided by the Space Division, Rockwell International (POM3WXMZ-483002) included development of a fundamental finite element hydroelastic formulation applicable to NASTRAN, implementation of the theoretical developments into NASTRAN and verification, and demonstration of the new technique on various problems including the 1/8-scale space shuttle external tank model.

ABSTRACT

A fundamental reformulation of the NASTRAN hydroelastic analysis is developed in Volume I on the basis of Toupin's complementary variational principle of classical mechanics and on the basis of a physical interpretation of the NASTRAN fluid matrix equations. Emphasis is placed on the special case of an incompressible fluid model which is applicable to propellant tank hydroelastic analysis. A concise fluid inertia representation results from the assumption of incompressibility and the NASTRAN hydroelastic equations reduce to a simplified form associated with non-fluid structures. The efficiency of the incompressible hydroelastic formulation is enhanced for both fluid and structure by introduction of harmonic reduction as an alternative to Guyan reduction. The theoretical developments are implemented in NASTRAN by use of ALTER-DMAP statements and the modified NASTRAN hydroelastic analysis technique is verified and demonstrated as an efficient and accurate approach by several illustrative problems.

In Volume II the detailed modifications to the NASTRAN hydroelastic analysis are described. The DMAP operations are listed and applied to the 1/8-Scale Shuttle Model External Tank. The resulting mode shapes and frequencies are compared with experimental results.

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1/8 – SCALE EXTERNAL TANK CALCULATION OF FLUID MASS
MATRIX AND PRESSURE RECOVERY MATRIX –
POST MAX Q FILL CONDITION $h_{LOX} \sim 50''$,
 $h_{LH_2} \sim 130''$, $n = 0, 1, 2, 3$

JULY 3, 1974 NASTRAN 2/1/73

N A S T R A N E X E C U T I V E C O N T R O L D E C K E C H O

ID HYDRO, CUPPOLINO

A22 0152

SJL 7.0

TIME 15

CHKDNT YES

DIAG 7.8, 13, 14, 19, 21, 22

AFTER 30

MATC24 CPL, USET, SIL, MGG//C.N.G

MATC24 CPL, USET, SIL, KGG//C.N.G

AFTER 73

MATC24 CPL, USET, SIL, MFF//C.N.F

MATC24 CPL, USET, SIL, KFF//C.N.F

AFTER 101

MATC24 CPL, USET, SIL, ABFL//C.N.P

MATC24 CPL, USET, SIL, KDFL//C.N.P

AFTER 122

ADD AJL, M20PP/M2PP/V.N.MFACT \$

AFTER 123, 124

AFTER 130

MATC24 CPL, USET, SIL, MDD//C.N.D

MATC24 CPL, USET, SIL, KDD//C.N.D

SEEMAI 4 CG, KGG, MFF, KFF, ABFL//C.N.PRINT

SEEMAI CPL, MDD, KDD, //C.N.PRINT

PARTN 100, P9, /CUP, AEM, KE/C.N.-1 \$

TIME 20.1/ACMT \$

DOVE CPL, ACMT/DOU2/C.N.1/C.N.-1 \$

ADD P202/P202/C.Y.A595=(1.0,0.0) \$

PARA4 //C.N.NDP/V.N, TRUE=-1 \$

CJ2IV DOU2/DOU2/TRUE \$

CJ2IV DOU2, TRUE \$

MATC24 2003, // \$

LABEL 20009 \$

MAYAD ALM, PUU2, /MFLD/C.N.0/C.N.-1 \$

CJ2IV 3 MFLD, PUU2, //C.N.0/C.Y.N1=AMF/C.Y.N2=APD \$

MATC24 2002, MFLD, AEM, // \$

-AJL 100, 170

AFTER 107, 170

EXIT

END-104

CEND

ORIGINAL PAGE IS
OF POOR QUALITY

JULY 3, 1974 NASTRAN 2/1273

NASTRAN EXECUTIVE CONTROL DECK ECHO

ECHO OF FIRST CARD IN CHECKPOINT DICTIONARY TO BE PUNCHED OUT FOR THIS PROBLEM

RESTART HYD33 *COPPOLIN. 7/ 3/74. 8970.

JULY 3, 1974 NASTRAN 2/1/73

FLUID

CASE CONTROL DECK ECHO

CARD
COUNT

1 TITLE=CYLINDRICAL FLUID

2 AXISYM=FLUID

3 SPC=1

4 MPC=1

5 CMETHOD=1

6 OUTPUT

7 DISP=ALL

8 HARMONICS=ALL

9 BEGIN BULK

*** USER INFORMATION MESSAGE 207. BULK DATA NOT SORTED.XSORT WILL RE-ORDER DECK.

ORIGINAL PAGE IS
OF POOR QUALITY

JULY 3, 1974 NASTRAN 2/1/73

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1-	AXIF	5100	0.0	2	3	NO				6AX
2-	AX	0	1	2	3					
3-	BDYLIST		1012	1025	1038	1051	1064	1077	1090	6801
4-	BDJ1	1103	1116	1129	1142	1154	1166	1179	1192	6802
5-	BDJ2	AXIS								
6-	BDYLIST		2181	2201	2221	2241	2261	2281	2302	6803
7-	BDJ3	2321	2344	2361	2401	2420	2439	AXIS		
8-	CFLUID2	5209	1009	1022						
9-	CFLUID2	5222	1022	1035						
10-	CFLUID2	5235	1035	1048						
11-	CFLUID2	5248	1048	1061						
12-	CFLUID2	5261	1061	1074						
13-	CFLUID2	5274	1074	1087						
14-	CFLUID2	5287	1087	1100						
15-	CFLUID2	5300	1100	1113						
16-	CFLUID2	5313	1113	1126						
17-	CFLUID2	5326	1126	1139						
18-	CFLUID2	5339	1139	1152						
19-	CFLUID2	5352	1152	1165						
20-	CFLUID2	5367	1165	1178						
21-	CFLUID2	8801	2179	2199			6.54-6			
22-	CFLUID2	8811	2199	2219			6.54-6			
23-	CFLUID2	8821	2219	2239			6.54-6			
24-	CFLUID2	8831	2239	2259			6.54-6			
25-	CFLUID2	8841	2259	2279			6.54-6			
26-	CFLUID2	8851	2279	2300			6.54-6			
27-	CFLUID2	8861	2300	2319			6.54-6			
28-	CFLUID2	8871	2319	2342			6.54-6			
29-	CFLUID2	8881	2342	2379			6.54-6			
30-	CFLUID2	8891	2379	2399			6.54-6			
31-	CFLUID2	8901	2399	2419			6.54-6			
32-	CFLUID2	8911	2419	2439			6.54-6			
33-	CFLUID3	5342	1142	1141	1154					
34-	CFLUID3	5354	1154	1153	1166					
35-	CFLUID3	5365	1165	1178	1179					
36-	CFLUID3	5366	1166	1165	1179					
37-	CFLUID3	8933	2401	2400	2420		6.54-6			
38-	CFLUID3	8912	2420	2419	2439		6.54-6			
39-	CFLUID4	5210	1010	1009	1022	1023				
40-	CFLUID4	5211	1011	1010	1023	1024				
41-	CFLUID4	5212	1012	1011	1024	1025				
42-	CFLUID4	5223	1023	1022	1035	1036				
43-	CFLUID4	5224	1024	1023	1036	1037				
44-	CFLUID4	5225	1025	1024	1037	1038				
45-	CFLUID4	5236	1036	1035	1048	1049				
46-	CFLUID4	5237	1037	1036	1049	1050				
47-	CFLUID4	5238	1038	1037	1050	1051				
48-	CFLUID4	5249	1049	1048	1051	1052				
49-	CFLUID4	5250	1050	1049	1052	1053				
50-	CFLUID4	5251	1051	1050	1053	1054				

JULY 3, 1974 NASRAN 24.1.73

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
51-	CFLUID4 5262	1064	1063	1076	1077					
52-	CFLUID4 5263	1063	1062	1075	1076					
53-	CFLUID4 5264	1062	1061	1074	1075					
54-	CFLUID4 5275	1088	1089	1102	1101					
55-	CFLUID4 5276	1088	1089	1102	1101					
56-	CFLUID4 5277	1089	1090	1103	1102					
57-	CFLUID4 5288	1103	1102	1115	1116					
58-	CFLUID4 5289	1102	1101	1114	1115					
59-	CFLUID4 5290	1101	1100	1113	1114					
60-	CFLUID4 5301	1113	1114	1127	1126					
61-	CFLUID4 5302	1114	1115	1128	1127					
62-	CFLUID4 5303	1115	1116	1129	1128					
63-	CFLUID4 5314	1129	1128	1141	1142					
64-	CFLUID4 5315	1128	1127	1140	1141					
65-	CFLUID4 5316	1127	1126	1139	1140					
66-	CFLUID4 5327	1075	1074	1087	1088					
67-	CFLUID4 5328	1076	1075	1089	1089					
68-	CFLUID4 5329	1077	1076	1090	1089					
69-	CFLUID4 5340	1140	1139	1152	1153					
70-	CFLUID4 5341	1141	1140	1153	1154					
71-	CFLUID4 5353	1153	1152	1165	1166					
72-	CFLUID4 8802	2179	2180	2200	2199	6.54-6				
73-	CFLUID4 8803	2180	2181	2201	2200	6.54-6				
74-	CFLUID4 8812	2199	2200	2220	2219	6.54-6				
75-	CFLUID4 8813	2200	2201	2221	2220	6.54-6				
76-	CFLUID4 8822	2219	2220	2240	2239	6.54-6				
77-	CFLUID4 8823	2220	2221	2241	2240	6.54-6				
78-	CFLUID4 8832	2239	2240	2250	2259	6.54-6				
79-	CFLUID4 8833	2240	2241	2261	2260	6.54-6				
80-	CFLUID4 8842	2259	2260	2280	2279	6.54-6				
81-	CFLUID4 8843	2260	2261	2281	2280	6.54-6				
82-	CFLUID4 8852	2279	2280	2301	2300	6.54-6				
83-	CFLUID4 8853	2280	2281	2302	2301	6.54-6				
84-	CFLUID4 8862	2300	2301	2320	2319	6.54-6				
85-	CFLUID4 8863	2301	2302	2321	2320	6.54-6				
86-	CFLUID4 8872	2319	2320	2343	2342	6.54-6				
87-	CFLUID4 8873	2320	2321	2343	2342	6.54-6				
88-	CFLUID4 8882	2342	2343	2360	2359	6.54-6				
89-	CFLUID4 8883	2343	2344	2381	2380	6.54-6				
90-	CFLUID4 8892	2379	2380	2401	2399	6.54-6				
91-	CFLUID4 8893	2380	2381	2401	2400	6.54-6				
92-	CFLUID4 8902	2399	2400	2420	2419	6.54-6				
93-	CURD2C 69	0	-81.5683.0	26.5170.669	35.5985.66.9096.0					
94-	69	68.25	0.0	48.432						
95-	CURD2C 100	696	74.738	-30.494	6.138	200.0	-30.494	6.138	6C5SRM	
96-	6C5SRM	74.738	0.0	0.0						
97-	CURD2C 5001	0	-81.5683.0	35.5985.66.9096.0	26.5170.669					
98-	6C5	68.25	0.0	48.432						
99-	CURD2C 5100	0	-81.5683.0	35.5985.66.9096.0	26.5170.669					
100-	6C5100	68.25	0.0	48.432						

JULY 3, 1974 NASTRAN 27.1.773

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	101	101	696	74.738	-30.494	6.138	74.738	-28.570115	6963	ERSSRM
101-	CORD2R	101	696	74.738	-30.494	6.138	74.738	-28.570115	6963	ERSSRM
102-	ERSSRM	200	-30.494	6.138						
103-	CORD2R	696	0	-81.5683.0	35.5985	-80.2278.0	57.5136	6966		
104-	6966	68.25	0.0	48.432						
105-	CORD2R	3001	0	-81.5683.0	35.5985	-80.2278.0	57.5136	6966		
106-	6966	68.25	0.0	48.432						
107-	CORD2R	3002	696	245.7536-16.463111.0003	245.7536-13.75	24.9514	6966			
108-	6966	300	-16.4631	11.0003						
109-	CORD2R	10000	0	-81.5683.0	35.5985	66.9056.0	26.5170	6966		
110-	6966	68.25	0.0	48.432						
111-	CORD2S	10002	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112-	6966	1.0	0.0	33.14						
113-	CORD2S	10003	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114-	6966	1.0	0.0	38.65						
115-	CORD2S	10004	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116-	6966	1.0	0.0	45.12						
117-	CORD2S	10005	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118-	6966	1.0	0.0	53.52						
119-	CORD2S	10006	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120-	6966	1.0	0.0	59.68						
121-	CORD2S	10010	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122-	6966	1.0	0.0	82.19						
123-	CORD2S	10011	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124-	6966	1.0	0.0	80.13						
125-	CORD2S	10012	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126-	6966	1.0	0.0	77.08						
127-	CORD2S	10013	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128-	6966	1.0	0.0	77.87						
129-	CORD2S	10014	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130-	6966	1.0	0.0	74.78						
131-	CORD2S	10015	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132-	6966	1.0	0.0	78.08						
133-	CORD2S	10016	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134-	6966	1.0	0.0	84.94						
135-	CORD2S	20014	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136-	6966	1.0	0.0	256.71						
137-	CORD2S	20015	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138-	6966	1.0	0.0	245.69						
139-	CORD2S	20016	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-	6966	1.0	0.0	249.21						
141-	CORD2S	20017	10000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142-	6966	1.0	0.0	249.52						
143-	DM1	P9	0	2	1	2	216	1		
144-	DM1	P9	1	89	1	1	1	1	1	CPUE 01
145-	CPUE 01	1	1	1	1	1	1	1	1	CPUE 02
146-	CPUE 02	1	1	1	1	1	1	1	1	CPUE 03
147-	CPUE 03	1	1	1	1	1	1	1	1	CPUE 04
148-	CPUE 04	1	1	1	1	1	1	1	1	CPUE 05
149-	CPUE 05	1	1	1	1	1	1	1	1	CPUE 06
150-	CPUE 06	1	1	1	1	1	1	1	1	CPUE 07

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
151-	EPUE07	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE08
152-	EPUE08	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE09
153-	EPUE09	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE10
154-	EPUE10	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE11
155-	EPUE11	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE12
156-	EPUE12	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE13
157-	EPUE13	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE14
158-	EPUE14	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE15
159-	EPUE15	1.	1.	1.	1.	1.	1.	1.	1.	1.	EPUE16
160-	EPUE16	1.	1.	1.	1.	1.	1.	1.	1.	1.	EEI
161-	ETGC	1	DET	MAX							
162-	EEI	0.	0.	0.	533.	.001	10	10			
163-	FLSYM	2	S	S							
164-	GRID	5001	3001	19.96	.2	.0	3001				
165-	GRID	5126	696	83.78	-19.41073	9071	10010				
166-	GRID	5204	5001	.0	.0	97.98	3001				
167-	GRID	8001	696	101.86	.0	.0	696				
168-	GRID	8010	69	6.40	.0	102.55	69				
169-	GRID	8011	69	6.40	22.5	102.55	69				
170-	GRID	8012	69	6.40	45.0	102.55	69				
171-	GRID	8013	69	6.40	67.5	102.55	69				
172-	GRID	8014	69	6.40	90.0	102.55	69				
173-	GRID	8015	69	6.40	112.5	102.55	69				
174-	GRID	8016	69	6.40	135.0	102.55	69				
175-	GRID	8017	69	6.40	157.5	102.55	69				
176-	GRID	8018	69	6.40	180.0	102.55	69				
177-	GRID	8030	69	12.61	.3	105.32	69				
178-	GRID	8031	69	12.61	22.5	105.32	69				
179-	GRID	8032	69	12.61	45.0	105.32	69				
180-	GRID	8033	69	12.61	67.5	105.32	69				
181-	GRID	8034	69	12.61	90.0	105.32	69				
182-	GRID	8035	69	12.61	112.5	105.32	69				
183-	GRID	8036	69	12.61	135.0	105.32	69				
184-	GRID	8037	69	12.61	157.5	105.32	69				
185-	GRID	8038	69	12.61	180.0	105.32	69				
186-	GRID	8050	69	17.91	.0	110.38	69				
187-	GRID	8051	69	17.91	22.5	110.38	69				
188-	GRID	8052	69	17.91	45.0	110.38	69				
189-	GRID	8053	69	17.91	67.5	110.38	69				
190-	GRID	8054	69	17.91	90.0	110.38	69				
191-	GRID	8055	69	17.91	112.5	110.38	69				
192-	GRID	8056	69	17.91	135.0	110.38	69				
193-	GRID	8057	69	17.91	157.5	110.38	69				
194-	GRID	8058	69	17.91	180.0	110.38	69				
195-	GRID	8070	69	19.80	.0	113.70	69				
196-	GRID	8071	69	19.80	22.5	113.70	69				
197-	GRID	8072	69	19.80	45.0	11					

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
201-	GRID	8076	69	19.80	112.5	113.70	69			
202-	GRID	8077	69	19.80	135.0	113.70	69			
203-	GRID	8078	69	19.80	157.5	113.70	69			
204-	GRID	8079	69	19.80	180.0	113.70	69			
205-	GRID	8110	69	19.80	.0	91.98	69			
206-	GRID	8111	69	19.80	22.5	91.98	69			
207-	GRID	8112	69	19.80	45.0	91.98	69			
208-	GRID	8113	69	19.80	67.5	91.98	69			
209-	GRID	8114	696	91.98	-19.41073.9071	69				
210-	GRID	8115	69	19.80	93.0	91.98	69			
211-	GRID	8116	69	19.80	112.5	91.98	69			
212-	GRID	8117	69	19.80	135.0	91.98	69			
213-	GRID	8118	69	19.80	157.5	91.98	69			
214-	GRID	8119	69	19.80	180.0	91.98	69			
215-	GRID	8130	69	19.80	.0	99.98	69			
216-	GRID	8131	69	19.80	22.5	99.98	69			
217-	GRID	8132	69	19.80	45.0	99.98	69			
218-	GRID	8133	69	19.80	67.5	99.98	69			
219-	GRID	8134	696	99.98	-19.41073.9071	100				
220-	GRID	8135	69	19.80	93.0	99.98	69			
221-	GRID	8136	69	19.80	112.5	99.98	69			
222-	GRID	8137	69	19.80	135.0	99.98	69			
223-	GRID	8138	69	19.80	157.5	99.98	69			
224-	GRID	8139	69	19.80	180.0	99.98	69			
225-	GRID	8140	696	99.98	.0	3.9071	696	456		
226-	GRID	8150	69	19.80	.0	106.86	69			
227-	GRID	8151	69	19.80	22.5	106.86	69			
228-	GRID	8152	69	19.80	45.0	106.86	69			
229-	GRID	8153	69	19.80	67.5	106.86	69			
230-	GRID	8154	696	106.86	-19.41073.9071	69				
231-	GRID	8155	69	19.80	93.0	106.86	69			
232-	GRID	8156	69	19.80	112.5	106.86	69			
233-	GRID	8157	69	19.80	135.0	106.86	69			
234-	GRID	8158	69	19.80	157.5	106.86	69			
235-	GRID	8159	69	19.80	180.0	106.86	69			
236-	GRID	8209	696	148.756	.0	21.9561	696	1456		
237-	GRID	8299	696	229.156	.0	.0	696	456		
238-	GRID	8328	696	245.7536	.0	24.9514	696	456		
239-	GRID	8329	696	245.7536	-13.75	24.9514	3002	12456		
240-	GRID	8331	69	19.80	11.25	245.753669				
241-	GRID	8334	69	19.80	56.25	245.753669				
242-	GRID	8341	696	245.7536	.0	.0	696	456		
243-	GRID	8350	69	19.80	.0	270.988	69			
244-	GRID	8351	69	19.80	22.5	270.988	69			
245-	GRID	8352	696	270.988	-14.970212.9588	101				
246-	GRID	8353	69	19.80	67.5	270.988	69			
247-	GRID	8354	69	19.80	93.0	270.988	69			
248-	GRID	8355	696	270.988	-18.8181	-6.1577	101			
249-	GRID	8356	69	19.80	135.0	270.988	69			
250-	GRID	8357	69	19.80	157.5	270.988	69			

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	69	69	69	69	69	69	69	69	69	69
251-	GRID	8358	19.80	180.0	270.988	456				
252-	GRID	8359	270.938	.0	12.5588	456				
253-	GRID	8360	270.988	.0	-6.1577	456				
254-	GRID	8440	269.44	.0	.0	696				
255-	GRID	100200	9.	9.	23.	10002				
256-	GRID	100201	9.	9.	23.	10002				
257-	GRID	100202	9.	9.	23.	10002				
258-	GRID	100203	9.	9.	23.	10002				
259-	GRID	100300	14.2	14.2	31.93	10003				
260-	GRID	100301	14.2	14.2	31.93	10003				
261-	GRID	100302	14.2	14.2	31.93	10003				
262-	GRID	100303	14.2	14.2	31.93	10003				
263-	GRID	100430	16.2	16.2	40.38	10004				
264-	GRID	100401	16.2	16.2	40.38	10004				
265-	GRID	100402	16.2	16.2	40.38	10004				
266-	GRID	100403	16.2	16.2	40.38	10004				
267-	GRID	100500	18.0	18.0	48.38	10005				
268-	GRID	100501	18.0	18.0	48.38	10005				
269-	GRID	100502	18.0	18.0	48.38	10005				
270-	GRID	100503	18.0	18.0	48.38	10005				
271-	GRID	100600	19.875	19.875	56.38	10006				
272-	GRID	100601	19.875	19.875	56.38	10006				
273-	GRID	100602	19.875	19.875	56.38	10006				
274-	GRID	100603	19.875	19.875	56.38	10006				
275-	GRID	100700	19.875	19.875	65.78	5100				
276-	GRID	100701	19.875	19.875	65.78	5100				
277-	GRID	100702	19.875	19.875	65.78	5100				
278-	GRID	100703	19.875	19.875	65.78	5100				
279-	GRID	100800	19.875	19.875	71.78	5100				
280-	GRID	100801	19.875	19.875	71.78	5100				
281-	GRID	100802	19.875	19.875	71.78	5100				
282-	GRID	100803	19.875	19.875	71.78	5100				
283-	GRID	100900	19.875	19.875	77.78	5100				
284-	GRID	100901	19.875	19.875	77.78	5100				
285-	GRID	100902	19.875	19.875	77.78	5100				
286-	GRID	100903	19.875	19.875	77.78	5100				
287-	GRID	101000	19.875	19.875	83.78	10010				
288-	GRID	101001	19.875	19.875	83.78	10010				
289-	GRID	101002	19.875	19.875	83.78	10010				
290-	GRID	101003	19.875	19.875	83.78	10010				
291-	GRID	101100	18.54	18.54	87.93	10011				
292-	GRID	101101	18.54	18.54	87.93	10011				
293-	GRID	101102	18.54	18.54	87.93	10011				
294-	GRID	101103	18.54	18.54	87.93	10011				
295-	GRID	101200	16.28	16.28	91.28	10012				
296-	GRID	101201	16.28	16.28	91.28	10012				
297-	GRID	101202	16.28	16.28	91.28	10012				
298-	GRID	101203	16.28	16.28	91.28	10012				
299-	GRID	101300	12.29	12.29	94.53	10013				
300-	GRID	101301	12.29	12.29	94.53	10013				

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SORTED B J L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
301-	GRID	101302	5100	12.29		94.53	10013			
302-	GRID	101303	5100	12.29		94.53	10013			
303-	GRID	101400	5100	9.274		96.083	10014			
304-	GRID	101401	5100	9.274		96.083	10014			
305-	GRID	101402	5100	9.274		96.083	10014			
306-	GRID	101403	5100	9.274		96.083	10014			
307-	GRID	101500	5100	5.266		97.386	10015			
308-	GRID	101501	5100	5.266		97.386	10015			
309-	GRID	101502	5100	5.266		97.386	10015			
310-	GRID	101503	5100	5.266		97.386	10015			
311-	GRID	101600	5100	1.7375		97.912	10016			
312-	GRID	101601	5100	1.7375		97.912	10016			
313-	GRID	101602	5100	1.7375		97.912	10016			
314-	GRID	101603	5100	1.7375		97.912	10016			
315-	GRID	110100	69	19.8		91.98	69			
316-	GRID	110101	69	19.8		91.98	69			
317-	GRID	110102	69	19.8		91.98	69			
318-	GRID	110103	69	19.8		91.98	69			
319-	GRID	110200	69	19.8		99.98	69			
320-	GRID	110201	69	19.8		99.98	69			
321-	GRID	110202	69	19.8		99.98	69			
322-	GRID	110203	69	19.8		99.98	69			
323-	GRID	110300	69	19.8		106.86	69			
324-	GRID	110301	69	19.8		106.86	69			
325-	GRID	110302	69	19.8		106.86	69			
326-	GRID	110303	69	19.8		106.86	69			
327-	GRID	110400	69	19.8		113.70	69			
328-	GRID	110401	69	19.8		113.70	69			
329-	GRID	110402	69	19.8		113.70	69			
330-	GRID	110403	69	19.8		113.70	69			
331-	GRID	110500	69	19.8		128.75	69			
332-	GRID	110501	69	19.8		128.75	69			
333-	GRID	110502	69	19.8		128.75	69			
334-	GRID	110503	69	19.8		128.75	69			
335-	GRID	110600	69	19.8		139.06	69			
336-	GRID	110601	69	19.8		139.06	69			
337-	GRID	110602	69	19.8		139.06	69			
338-	GRID	110603	69	19.8		139.06	69			
339-	GRID	110700	69	19.8		148.756	69			
340-	GRID	110701	69	19.8		148.756	69			
341-	GRID	110702	69	19.8		148.756	69			
342-	GRID	110703	69	19.8		148.756	69			
343-	GRID	110800	69	19.8		168.75	69			
344-	GRID	110801	69	19.8		168.75	69			
345-	GRID	110802	69	19.8		168.75	69			
346-	GRID	110803	69	19.8		168.75	69			
347-	GRID	110900	69	19.8		188.75	69			
348-	GRID	110901	69	19.8		188.75	69			
349-	GRID	110902	69	19.8		188.75	69			
350-	GRID	110903	69	19.8		188.75	69			

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
351-	GRID	111000 69	19.8	209.13 69						
352-	GRID	111001 69	19.8	209.13 69						
353-	GRID	111002 69	19.8	209.13 69						
354-	GRID	111003 69	19.8	209.13 69						
355-	GRID	111100 69	19.8	229.156 69						
356-	GRID	111101 69	19.8	229.156 69						
357-	GRID	111102 69	19.8	229.156 69						
358-	GRID	111103 69	19.8	229.156 69						
359-	GRID	111200 69	19.8	237.30 69						
360-	GRID	111201 69	19.8	237.30 69						
361-	GRID	111202 69	19.8	237.30 69						
362-	GRID	111203 69	19.8	237.30 69						
363-	GRID	111300 69	19.8	245.753669						
364-	GRID	111301 69	19.8	245.753669						
365-	GRID	111302 69	19.8	245.753669						
366-	GRID	111303 69	19.8	245.753669						
367-	GRID	111400 69	19.8	258.125 20014						
368-	GRID	111401 69	19.8	258.125 20014						
369-	GRID	111402 69	19.8	258.125 20014						
370-	GRID	111403 69	19.8	258.125 20014						
371-	GRID	111500 69	17.91	260.92 20015						
372-	GRID	111501 69	17.91	260.92 20015						
373-	GRID	111502 69	17.91	260.92 20015						
374-	GRID	111503 69	17.91	260.92 20015						
375-	GRID	111600 69	12.61	265.98 20016						
376-	GRID	111601 69	12.61	265.98 20016						
377-	GRID	111602 69	12.61	265.98 20016						
378-	GRID	111603 69	12.61	265.98 20016						
379-	GRID	111700 69	6.40	268.75 20017						
380-	GRID	111701 69	6.40	268.75 20017						
381-	GRID	111702 69	6.40	268.75 20017						
382-	GRID	111703 69	6.40	268.75 20017						
383-	GRID	5013	5001	24.000 10002						1012
384-	GRID	5014	5001	24.000 10002						1012
385-	GRID	5015	5001	45.000 10002						1012
386-	GRID	5016	5001	67.500 10002						1012
387-	GRID	5017	5001	90.000 10002						1012
388-	GRID	5018	5001	112.500 10002						1012
389-	GRID	5019	5001	135.000 10002						1012
390-	GRID	5020	5001	157.500 10002						1012
391-	GRID	5021	5001	180.000 10002						1012
392-	GRID	5026	5001	31.930 10003						1025
393-	GRID	5027	5001	31.930 10003						1025
394-	GRID	5028	5001	31.930 10003						1025
395-	GRID	5029	5001	31.930 10003						1025
396-	GRID	5030	5001	31.930 10003						1025
397-	GRID	5031	5001	31.930 10003						1025
398-	GRID	5032	5001	31.930 10003						1025
399-	GRID	5033	5001	31.930 10003						1025
400-	GRID	5034	5001	31.930 10003						1025

SORTED BULK DATA ECHO

GRID	1	2	3	4	5	6	7	8	9	10
401-	GRIDB	5039	5001	16.200	.000	40.380	10004		1038	
402-	GRIDB	5040	5001	16.200	22.500	40.380	10004		1038	
403-	GRIDB	5041	5001	16.200	45.000	40.380	10004		1038	
404-	GRIDB	5042	5001	16.200	67.500	40.380	10004		1038	
405-	GRIDB	5043	5001	16.200	90.000	40.380	10004		1038	
406-	GRIDB	5044	5001	16.200	112.500	40.380	10004		1038	
407-	GRIDB	5045	5001	16.200	135.000	40.380	10004		1038	
408-	GRIDB	5046	5001	16.200	157.500	40.380	10004		1038	
409-	GRIDB	5047	5001	16.200	180.000	40.380	10004		1038	
410-	GRIDB	5052	5001	18.000	.000	48.380	10005		1051	
411-	GRIDB	5053	5001	18.000	22.500	48.380	10005		1051	
412-	GRIDB	5054	5001	18.000	45.000	48.380	10005		1051	
413-	GRIDB	5055	5001	18.000	67.500	48.380	10005		1051	
414-	GRIDB	5056	5001	18.000	90.000	48.380	10005		1051	
415-	GRIDB	5057	5001	18.000	112.500	48.380	10005		1051	
416-	GRIDB	5058	5001	18.000	135.000	48.380	10005		1051	
417-	GRIDB	5059	5001	18.000	157.500	48.380	10005		1051	
418-	GRIDB	5060	5001	18.000	180.000	48.380	10005		1051	
419-	GRIDB	5065	5001	19.875	.000	56.280	10006		1064	
420-	GRIDB	5066	5001	19.875	22.500	56.280	10006		1064	
421-	GRIDB	5067	5001	19.875	45.000	56.280	10006		1064	
422-	GRIDB	5068	5001	19.875	67.500	56.280	10006		1064	
423-	GRIDB	5069	5001	19.875	90.000	56.280	10006		1064	
424-	GRIDB	5070	5001	19.875	112.500	56.280	10006		1064	
425-	GRIDB	5071	5001	19.875	135.000	56.280	10006		1064	
426-	GRIDB	5072	5001	19.875	157.500	56.280	10006		1064	
427-	GRIDB	5073	5001	19.875	180.000	56.280	10006		1064	
428-	GRIDB	5078	5001	19.875	.000	65.780	5100		1077	
429-	GRIDB	5079	5001	19.875	22.500	65.780	5100		1077	
430-	GRIDB	5080	5001	19.875	45.000	65.780	5100		1077	
431-	GRIDB	5081	5001	19.875	67.500	65.780	5100		1077	
432-	GRIDB	5082	5001	19.875	90.000	65.780	5100		1077	
433-	GRIDB	5083	5001	19.875	112.500	65.780	5100		1077	
434-	GRIDB	5084	5001	19.875	135.000	65.780	5100		1077	
435-	GRIDB	5085	5001	19.875	157.500	65.780	5100		1077	
436-	GRIDB	5085	5001	19.875	180.000	65.780	5100		1077	
437-	GRIDB	5091	5001	19.875	.000	71.780	5100		1050	
438-	GRIDB	5092	5001	19.875	22.500	71.780	5100		1050	
439-	GRIDB	5093	5001	19.875	45.000	71.780	5100		1050	
440-	GRIDB	5094	5001	19.875	67.500	71.780	5100		1050	
441-	GRIDB	5095	5001	19.875	90.000	71.780	5100		1050	
442-	GRIDB	5096	5001	19.875	112.500	71.780	5100		1050	
443-	GRIDB	5097	5001	19.875	135.000	71.780	5100		1050	
444-	GRIDB	5098	5001	19.875	157.500	71.780	5100		1050	
445-	GRIDB	5099	5001	19.875	180.000	71.780	5100		1050	
446-	GRIDB	5104	5001	19.875	.000	77.780	5100		1103	
447-	GRIDB	5105	5001	19.875	22.500	77.780	5100		1103	
448-	GRIDB	5106	5001	19.875	45.000	77.780	5100		1103	
449-	GRIDB	5107	5001	19.875	67.500	77.780	5100		1103	
450-	GRIDB	5108	5001	19.875	90.000	77.780	5100		1103	

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
451-	GR1DB	5109	5001	19.875	112.500	77.780	5100		1103	
452-	GR1DB	5110	5001	19.875	135.000	77.780	5100		1103	
453-	GR1DB	5111	5001	19.875	157.500	77.780	5100		1103	
454-	GR1DB	5112	5001	19.875	180.000	77.780	5100		1103	
455-	GR1DB	5117	5001	19.8	.000	83.780	10010		1116	
456-	GR1DB	5118	5001	19.8	22.500	83.780	10010		1116	
457-	GR1DB	5119	5001	19.8	45.000	83.780	10010		1116	
458-	GR1DB	5120	5001	19.8	67.500	83.780	10010		1116	
459-	GR1DB	5121	5001	19.8	90.000	83.780	10010		1116	
460-	GR1DB	5122	5001	19.8	112.500	83.780	10010		1116	
461-	GR1DB	5123	5001	19.8	135.000	83.780	10010		1116	
462-	GR1DB	5124	5001	19.8	157.500	83.780	10010		1116	
463-	GR1DB	5125	5001	19.8	180.000	83.780	10010		1116	
464-	GR1DB	5130	5001	18.54	.0	87.93	10011		1129	
465-	GR1DB	5131	5001	18.54	22.5	87.93	10011		1129	
466-	GR1DB	5132	5001	18.54	45.0	87.93	10011		1129	
467-	GR1DB	5133	5001	18.54	67.5	87.93	10011		1129	
468-	GR1DB	5134	5001	18.54	90.0	87.93	10011		1129	
469-	GR1DB	5135	5001	18.54	112.5	87.93	10011		1129	
470-	GR1DB	5136	5001	18.54	135.0	87.93	10011		1129	
471-	GR1DB	5137	5001	18.54	157.5	87.93	10011		1129	
472-	GR1DB	5138	5001	18.54	180.0	87.93	10011		1129	
473-	GR1DB	5143	5001	16.28	.0	91.28	10012		1142	
474-	GR1DB	5144	5001	16.28	22.5	91.28	10012		1142	
475-	GR1DB	5145	5001	16.28	45.0	91.28	10012		1142	
476-	GR1DB	5146	5001	16.28	67.5	91.28	10012		1142	
477-	GR1DB	5147	5001	16.28	90.0	91.28	10012		1142	
478-	GR1DB	5148	5001	16.28	112.5	91.28	10012		1142	
479-	GR1DB	5149	5001	16.28	135.0	91.28	10012		1142	
480-	GR1DB	5150	5001	16.28	157.5	91.28	10012		1142	
481-	GR1DB	5151	5001	16.28	180.0	91.28	10012		1142	
482-	GR1DB	5156	5001	12.29	.0	94.53	10013		1154	
483-	GR1DB	5157	5001	12.29	22.5	94.53	10013		1154	
484-	GR1DB	5158	5001	12.29	45.0	94.53	10013		1154	
485-	GR1DB	5159	5001	12.29	67.5	94.53	10013		1154	
486-	GR1DB	5160	5001	12.29	90.0	94.53	10013		1154	
487-	GR1DB	5161	5001	12.29	112.5	94.53	10013		1154	
488-	GR1DB	5162	5001	12.29	135.0	94.53	10013		1154	
489-	GR1DB	5163	5001	12.29	157.5	94.53	10013		1154	
490-	GR1DB	5164	5001	12.29	180.0	94.53	10013		1154	
491-	GR1DB	5169	5001	9.274	.0	96.083	10014		1166	
492-	GR1DB	5170	5001	9.274	22.5	96.083	10014		1166	
493-	GR1DB	5171	5001	9.274	45.0	96.083	10014		1166	
494-	GR1DB	5172	5001	9.274	67.5	96.083	10014		1166	
495-	GR1DB	5173	5001	9.274	90.0	96.083	10014		1166	
496-	GR1DB	5174	5001	9.274	112.5	96.083	10014		1166	
497-	GR1DB	5175	5001	9.274	135.0	96.083	10014		1166	
498-	GR1DB	5176	5001	9.274	157.5	96.083	10014		1166	
499-	GR1DB	5177	5001	9.274	180.0	96.083	10014		1166	
500-	GR1DB	5182	5001	5.206	.0	97.306	10015		1179	

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	GRID	5183	5001	5.266	22.5	97.386	10015		1179	
501-	GRID	5184	5001	5.266	45.	97.386	10015		1179	
502-	GRID	5185	5001	5.266	67.5	97.386	10015		1179	
503-	GRID	5186	5001	5.266	93.	97.386	10015		1179	
504-	GRID	5187	5001	5.266	112.5	97.386	10015		1179	
505-	GRID	5188	5001	5.266	135.0	97.386	10015		1179	
506-	GRID	5189	5001	5.266	157.5	97.386	10015		1179	
507-	GRID	5190	5001	5.266	183.	97.386	10015		1179	
508-	GRID	5195	5001	1.785	.0	97.912	10016		1178	
509-	GRID	5196	5001	1.785	22.5	97.912	10016		1178	
510-	GRID	5197	5001	1.785	45.	97.912	10016		1178	
511-	GRID	5198	5001	1.785	67.5	97.912	10016		1178	
512-	GRID	5199	5001	1.785	90.	97.912	10016		1178	
513-	GRID	5200	5001	1.785	112.5	97.912	10016		1178	
514-	GRID	5201	5001	1.785	135.0	97.912	10016		1178	
515-	GRID	5202	5001	1.785	157.5	97.912	10016		1178	
516-	GRID	5203	5001	1.785	183.	97.912	10016		1178	
517-	GRID	8170	69	19.80	.0	128.35	5100		2181	
518-	GRID	8171	69	19.80	22.5	128.35	5100		2181	
519-	GRID	8172	69	19.80	45.0	128.35	5100		2181	
520-	GRID	8173	69	19.80	67.5	128.35	5100		2181	
521-	GRID	8174	69	19.80	90.0	128.35	5100		2181	
522-	GRID	8175	69	19.80	112.5	128.35	5100		2181	
523-	GRID	8176	69	19.80	135.0	128.35	5100		2181	
524-	GRID	8177	69	19.80	157.5	128.35	5100		2181	
525-	GRID	8178	69	19.80	180.0	128.35	5100		2181	
526-	GRID	8190	69	19.80	.0	139.06	5100		2201	
527-	GRID	8191	69	19.80	22.5	139.06	5100		2201	
528-	GRID	8192	69	19.80	45.0	139.06	5100		2201	
529-	GRID	8193	69	19.80	67.5	139.06	5100		2201	
530-	GRID	8194	69	19.80	90.0	139.06	5100		2201	
531-	GRID	8195	69	19.80	112.5	139.06	5100		2201	
532-	GRID	8196	69	19.80	135.0	139.06	5100		2201	
533-	GRID	8197	69	19.80	157.5	139.06	5100		2201	
534-	GRID	8198	69	19.80	180.0	139.06	5100		2201	
535-	GRID	8210	69	19.80	.0	148.756	5100		2221	
536-	GRID	8211	69	19.80	22.5	148.756	5100		2221	
537-	GRID	8212	69	19.80	45.0	148.756	5100		2221	
538-	GRID	8213	69	19.80	67.5	148.756	5100		2221	
539-	GRID	8214	69	19.80	90.0	148.756	5100		2221	
540-	GRID	8215	69	19.80	112.5	148.756	5100		2221	
541-	GRID	8216	69	19.80	135.0	148.756	5100		2221	
542-	GRID	8217	69	19.80	157.5	148.756	5100		2221	
543-	GRID	8218	69	19.80	180.0	148.756	5100		2221	
544-	GRID	8230	69	19.80	.0	168.75	5100		2241	
545-	GRID	8231	69	19.80	22.5	168.75	5100		2241	
546-	GRID	8232	69	19.80	45.0	168.75	5100		2241	
547-	GRID	8233	69	19.80	67.5	168.75	5100		2241	
548-	GRID	8234	69	19.80	90.0	168.75	5100		2241	
549-	GRID	8235	69	19.80	112.5	168.75	5100		2241	

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CARD	COUNT	1	2	3	4	5	6	7	8	9	10
551-	GRID8	8236	69	19.80	135.0	168.75	5100			2241	
552-	GRID8	8237	69	19.80	157.5	168.75	5100			2241	
553-	GRID8	8238	69	19.80	180.0	168.75	5100			2241	
554-	GRID8	8250	69	19.80	.0	188.75	5100			2261	
555-	GRID8	8251	69	19.80	22.5	188.75	5100			2261	
556-	GRID8	8252	69	19.80	45.0	188.75	5100			2261	
557-	GRID8	8253	69	19.80	67.5	188.75	5100			2261	
558-	GRID8	8254	69	19.80	90.0	188.75	5100			2261	
559-	GRID8	8255	69	19.80	112.5	188.75	5100			2261	
560-	GRID8	8256	69	19.80	135.0	188.75	5100			2261	
561-	GRID8	8257	69	19.80	157.5	188.75	5100			2261	
562-	GRID8	8258	59	19.80	180.0	188.75	5100			2261	
563-	GRID8	8270	69	19.80	.0	209.13	5100			2281	
564-	GRID8	8271	69	19.80	22.5	209.13	5100			2281	
565-	GRID8	8272	69	19.80	45.0	209.13	5100			2281	
566-	GRID8	8273	69	19.80	67.5	209.13	5100			2281	
567-	GRID8	8274	69	19.80	90.0	209.13	5100			2281	
568-	GRID8	8275	69	19.80	112.5	209.13	5100			2281	
569-	GRID8	8276	69	19.80	135.0	209.13	5100			2281	
570-	GRID8	8277	69	19.80	157.5	209.13	5100			2281	
571-	GRID8	8278	69	19.80	180.0	209.13	5100			2281	
572-	GRID8	8290	69	19.80	.0	229.156	5100			2302	
573-	GRID8	8291	69	19.80	22.5	229.156	5100			2302	
574-	GRID8	8292	69	19.80	45.0	229.156	5100			2302	
575-	GRID8	8293	69	19.80	67.5	229.156	5100			2302	
576-	GRID8	8294	69	19.80	90.0	229.156	5100			2302	
577-	GRID8	8295	69	19.80	112.5	229.156	5100			2302	
578-	GRID8	8296	69	19.80	135.0	229.156	5100			2302	
579-	GRID8	8297	69	19.80	157.5	229.156	5100			2302	
580-	GRID8	8298	69	19.80	180.0	229.156	5100			2302	
581-	GRID8	8310	69	19.80	.0	237.30	5100			2321	
582-	GRID8	8311	69	19.80	22.5	237.30	5100			2321	
583-	GRID8	8312	69	19.80	45.0	237.30	5100			2321	
584-	GRID8	8313	69	19.80	67.5	237.30	5100			2321	
585-	GRID8	8314	69	19.80	90.0	237.30	5100			2321	
586-	GRID8	8315	69	19.80	112.5	237.30	5100			2321	
587-	GRID8	8316	69	19.80	135.0	237.30	5100			2321	
588-	GRID8	8317	69	19.80	157.5	237.30	5100			2321	
589-	GRID8	8318	69	19.80	180.0	237.30	5100			2321	
590-	GRID8	8330	69	19.80	.0	245.75365100				2344	
591-	GRID8	8332	69	19.80	22.5	245.75365100				2344	
592-	GRID8	8333	69	19.80	45.0	245.75365100				2344	
593-	GRID8	8335	69	19.80	67.5	245.75365100				2344	
594-	GRID8	8336	69	19.80	90.0	245.75365100				2344	
595-	GRID8	8337	69	19.80	112.5	245.75365100				2344	
596-	GRID8	8338	69	19.80	135.0	245.75365100				2344	
597-	GRID8	8339	69	19.80	157.5	245.75365100				2344	
598-	GRID8	8340	69	19.80	180.0	245.75365100				2344	
599-	GRID8	8370	69	19.80	.0	258.125 20014				2381	
600-	GRID8	8371	69	19.80	22.5	258.125 20014				2381	

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SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
601-	GRID8	8372	69	19.80	45.0	258.125	20014	2381			
602-	GRID8	8373	69	19.80	67.5	258.125	20014	2381			
603-	GRID8	8374	69	19.80	90.0	258.125	20014	2381			
604-	GRID8	8375	69	19.80	112.5	258.125	20014	2381			
605-	GRID8	8376	69	19.80	135.0	258.125	20014	2381			
606-	GRID8	8377	69	19.80	157.5	258.125	20014	2381			
607-	GRID8	8378	69	19.80	180.0	258.125	20014	2381			
608-	GRID8	8379	69	17.91	.0	260.92	20015	2401			
609-	GRID8	8380	69	17.91	22.5	260.92	20015	2401			
610-	GRID8	8381	69	17.91	45.0	260.92	20015	2401			
611-	GRID8	8382	69	17.91	67.5	260.92	20015	2401			
612-	GRID8	8383	69	17.91	90.0	260.92	20015	2401			
613-	GRID8	8384	69	17.91	112.5	260.92	20015	2401			
614-	GRID8	8385	69	17.91	135.0	260.92	20015	2401			
615-	GRID8	8386	69	17.91	157.5	260.92	20015	2401			
616-	GRID8	8387	69	17.91	180.0	260.92	20015	2401			
617-	GRID8	8388	69	12.61	.0	265.98	20016	2420			
618-	GRID8	8389	69	12.61	22.5	265.98	20016	2420			
619-	GRID8	8390	69	12.61	45.0	265.98	20016	2420			
620-	GRID8	8391	69	12.61	67.5	265.98	20016	2420			
621-	GRID8	8392	69	12.61	90.0	265.98	20016	2420			
622-	GRID8	8393	69	12.61	112.5	265.98	20016	2420			
623-	GRID8	8394	69	12.61	135.0	265.98	20016	2420			
624-	GRID8	8395	69	12.61	157.5	265.98	20016	2420			
625-	GRID8	8396	69	12.61	180.0	265.98	20016	2420			
626-	GRID8	8397	69	6.40	.0	268.75	20017	2439			
627-	GRID8	8398	69	6.40	22.5	268.75	20017	2439			
628-	GRID8	8399	69	6.40	45.0	268.75	20017	2439			
629-	GRID8	8400	69	6.40	67.5	268.75	20017	2439			
630-	GRID8	8401	69	6.40	90.0	268.75	20017	2439			
631-	GRID8	8402	69	6.40	112.5	268.75	20017	2439			
632-	GRID8	8403	69	6.40	135.0	268.75	20017	2439			
633-	GRID8	8404	69	6.40	157.5	268.75	20017	2439			
634-	GRID8	8405	69	6.40	180.0	268.75	20017	2439			
635-	MPC	1	5013	1	-1.	100200	1	1.00000		CM501311	
636-	CM501311	100201	1	1.00000	100202	1	1.00000		CM501321		
637-	CM501321	100203	1	1.00000							
638-	MPC	1	5014	1	-1.	100200	1	1.00000		CM501411	
639-	CM501411	100201	1	0.92338	100202	1	0.70711		CM501421		
640-	CM501421	100203	1	0.39268							
641-	MPC	1	5015	1	-1.	100200	1	1.00000		CM501511	
642-	CM501511	100201	1	0.70711	100202	1	0.00000		CM501521		
643-	CM501521	100203	1	-0.70711							
644-	MPC	1	5016	1	-1.	100200	1	1.00000		CM501611	
645-	CM501611	100201	1	0.38268	100202	1	-0.70711		CM501621		
646-	CM501621	100203	1	-0.92338							
647-	MPC	1	5017	1	-1.	100200	1	1.00000		CM501711	
648-	CM501711	100201	1	0.00000	100202	1	-1.00000		CM501721		
649-	CM501721	100203	1	-0.00000							
650-	MPC	1	5018	1	-1.	100200	1	1.00000		CM501811	

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CARD	1	2	3	4	5	6	7	8	9	10
651-	CM501811	1	100201	1	0.38268	100202	1	0.70711	1	CM501821
652-	CM501821	1	100203	1	0.92338					
653-	MPC	1	5019	1	-1.	100200	1	1.00000		CM501911
654-	CM501911	1	100201	1	0.70711	100202	1	0.00000		CM501921
655-	CM501921	1	100203	1	0.70711					
656-	MPC	1	5020	1	-1.	100230	1	1.00000		CM502011
657-	CM502011	1	100201	1	0.92338	100202	1	0.70711		CM502021
658-	CM502021	1	100203	1	0.38268					
659-	MPC	1	5021	1	-1.	100200	1	1.00000		CM502111
660-	CM502111	1	100201	1	1.00000	100202	1	1.00000		CM502121
661-	CM502121	1	100203	1	1.00000					
662-	MPC	1	5026	1	-1.	100300	1	1.00000		CM502611
663-	CM502611	1	100301	1	1.00000	100302	1	1.00000		CM502621
664-	CM502621	1	100303	1	1.00000					
665-	MPC	1	5027	1	-1.	100300	1	1.00000		CM502711
666-	CM502711	1	100301	1	0.92338	100302	1	0.70711		CM502721
667-	CM502721	1	100303	1	0.38268					
668-	MPC	1	5028	1	-1.	100300	1	1.00000		CM502811
669-	CM502811	1	100301	1	0.70711	100302	1	0.00000		CM502821
670-	CM502821	1	100303	1	0.70711					
671-	MPC	1	5029	1	-1.	100300	1	1.00000		CM502911
672-	CM502911	1	100301	1	0.38268	100302	1	0.70711		CM502921
673-	CM502921	1	100303	1	0.92338					
674-	MPC	1	5030	1	-1.	100300	1	1.00000		CM503011
675-	CM503011	1	100301	1	0.00000	100302	1	1.00000		CM503021
676-	CM503021	1	100303	1	0.00000					
677-	MPC	1	5031	1	-1.	100300	1	1.00000		CM503111
678-	CM503111	1	100301	1	0.38268	100302	1	0.70711		CM503121
679-	CM503121	1	100303	1	0.92338					
680-	MPC	1	5032	1	-1.	100300	1	1.00000		CM503211
681-	CM503211	1	100301	1	0.70711	100302	1	0.00000		CM503221
682-	CM503221	1	100303	1	0.70711					
683-	MPC	1	5033	1	-1.	100300	1	1.00000		CM503311
684-	CM503311	1	100301	1	0.92338	100302	1	0.70711		CM503321
685-	CM503321	1	100303	1	0.38268					
686-	MPC	1	5034	1	-1.	100300	1	1.00000		CM503411
687-	CM503411	1	100301	1	1.00000	100302	1	1.00000		CM503421
688-	CM503421	1	100303	1	1.00000					
689-	MPC	1	5039	1	-1.	100400	1	1.00000		CM503911
690-	CM503911	1	100401	1	1.00000	100402	1	1.00000		CM503921
691-	CM503921	1	100403	1	1.00000					
692-	MPC	1	5040	1	-1.	100400	1	1.00000		CM504011
693-	CM504011	1	100401	1	0.92338	100402	1	0.70711		CM504021
694-	CM504021	1	100403	1	0.38268					
695-	MPC	1	5041	1	-1.	100400	1	1.00000		CM504111
696-	CM504111	1	100401	1	0.70711	100402	1	0.00000		CM504121
697-	CM504121	1	100403	1	0.70711					
698-	MPC	1	5042	1	-1.	100400	1	1.00000		CM504211
699-	CM504211	1	100401	1	0.38268	100402	1	0.70711		CM504221
700-	CM504221	1	100403	1	0.92338					

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
701-	MPC	5043	1	1	-1.	100400	1	1.00000	CM504311	
702-	CM504311	100401	100401	100402	1 0.00000	100402	1	1.00000	CM504321	
703-	CM504321	100403	100403	100404	1 -0.00000	100404	1	1.00000	CM504411	
704-	MPC	5044	1	1	-1.	100400	1	1.00000	CM504421	
705-	CM504411	100401	100401	100402	1 -0.38268	100402	1	1.00000	CM504511	
706-	CM504421	100403	100403	100404	1 0.92338	100404	1	1.00000	CM504521	
707-	MPC	5045	1	1	-1.	100400	1	1.00000	CM504611	
708-	CM504511	100401	100401	100402	1 -0.70711	100402	1	1.00000	CM504621	
709-	CM504521	100403	100403	100404	1 0.70711	100404	1	1.00000	CM504711	
710-	MPC	5046	1	1	-1.	100400	1	1.00000	CM504721	
711-	CM504611	100401	100401	100402	1 -0.92338	100402	1	1.00000	CM505211	
712-	CM504621	100403	100403	100404	1 -0.38268	100404	1	1.00000	CM505221	
713-	MPC	5047	1	1	-1.	100400	1	1.00000	CM505311	
714-	CM504711	100401	100401	100402	1 -1.00000	100402	1	1.00000	CM505321	
715-	CM504721	100403	100403	100404	1 -1.00000	100404	1	1.00000	CM505411	
716-	MPC	5052	1	1	-1.	100500	1	1.00000	CM505421	
717-	CM505211	100501	100501	100502	1 1.00000	100502	1	1.00000	CM505511	
718-	CM505221	100503	100503	100504	1 1.00000	100504	1	1.00000	CM505521	
719-	MPC	5053	1	1	-1.	100500	1	1.00000	CM505611	
720-	CM505311	100501	100501	100502	1 0.92338	100502	1	1.00000	CM505621	
721-	CM505321	100503	100503	100504	1 0.38268	100504	1	1.00000	CM505711	
722-	MPC	5054	1	1	-1.	100500	1	1.00000	CM505721	
723-	CM505411	100501	100501	100502	1 0.70711	100502	1	1.00000	CM505811	
724-	CM505421	100503	100503	100504	1 -0.70711	100504	1	1.00000	CM505821	
725-	MPC	5055	1	1	-1.	100500	1	1.00000	CM505911	
726-	CM505511	100501	100501	100502	1 0.38268	100502	1	1.00000	CM505921	
727-	CM505521	100503	100503	100504	1 -0.92338	100504	1	1.00000	CM506011	
728-	MPC	5056	1	1	-1.	100500	1	1.00000	CM506021	
729-	CM505611	100501	100501	100502	1 0.00000	100502	1	1.00000	CM50611	
730-	CM505621	100503	100503	100504	1 -0.00000	100504	1	1.00000	CM50612	
731-	MPC	5057	1	1	-1.	100500	1	1.00000	CM50621	
732-	CM505711	100501	100501	100502	1 -0.38268	100502	1	1.00000	CM50631	
733-	CM505721	100503	100503	100504	1 0.92338	100504	1	1.00000	CM50632	
734-	MPC	5058	1	1	-1.	100500	1	1.00000	CM50641	
735-	CM505811	100501	100501	100502	1 -0.70711	100502	1	1.00000	CM50642	
736-	CM505821	100503	100503	100504	1 0.70711	100504	1	1.00000	CM50651	
737-	MPC	5059	1	1	-1.	100500	1	1.00000	CM50652	
738-	CM505911	100501	100501	100502	1 -0.92338	100502	1	1.00000	CM50661	
739-	CM505921	100503	100503	100504	1 -0.38268	100504	1	1.00000	CM50662	
740-	MPC	5060	1	1	-1.	100500	1	1.00000	CM50671	
741-	CM506011	100501	100501	100502	1 -1.00000	100502	1	1.00000	CM50672	
742-	CM506021	100503	100503	100504	1 -1.00000	100504	1	1.00000	CM50681	
743-	MPC	5061	1	1	-1.	100500	1	1.00000	CM50682	
744-	CM50611	100501	100501	100502	1 1.00000	100502	1	1.00000	CM50691	
745-	CM50612	100503	100503	100504	1 1.00000	100504	1	1.00000	CM50692	
746-	MPC	5062	1	1	-1.	100500	1	1.00000	CM50701	
747-	CM50621	100501	100501	100502	1 0.92338	100502	1	1.00000	CM50702	
748-	CM50622	100503	100503	100504	1 -0.38268	100504	1	1.00000	CM50711	
749-	MPC	5067	1	1	-1.	100500	1	1.00000	CM50712	
750-	CM506711	100501	100501	100502	1 0.70711	100502	1	1.00000	CM50721	

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SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
751-	EM506721	1	100603	1-3.70711						
752-	MPC	5068	1	-1	100600	1	1.00000			EM506811
753-	EM506811	1	100601	1 0.38258	100602		1-0.70711			EM506821
754-	EM506821	1	100603	1-0.92338						
755-	MPC	5069	1	-1	100600	1	1.00000			EM506911
756-	EM506911	1	100601	1 0.00030	100602		1-1.00000			EM506921
757-	EM506921	1	100603	1-3.00030						
758-	MPC	5070	1	-1	100600	1	1.00000			EM507011
759-	EM507011	1	100601	1-0.38268	100602		1-0.70711			EM507021
760-	EM507021	1	100603	1 0.92338						
761-	MPC	5071	1	-1	100600	1	1.00000			EM507111
762-	EM507111	1	100601	1-3.70711	100602		1-0.00000			EM507121
763-	EM507121	1	100603	1 3.70711						
764-	MPC	5072	1	-1	100600	1	1.00000			EM507211
765-	EM507211	1	100601	1-0.92338	100602		1 0.70711			EM507221
766-	EM507221	1	100603	1-3.38268						
767-	MPC	5073	1	-1	100600	1	1.00000			EM507311
768-	EM507311	1	100601	1-1.00000	100602		1 1.00000			EM507321
769-	EM507321	1	100603	1-1.00000						
770-	MPC	5078	1	-1	100700	1	1.00000			EM507811
771-	EM507811	1	100701	1 1.00000	100702		1 1.00000			EM507821
772-	EM507821	1	100703	1 1.00030						
773-	MPC	5079	1	-1	100700	1	1.00000			EM507911
774-	EM507911	1	100701	1 0.92338	100702		1 0.70711			EM507921
775-	EM507921	1	100703	1 3.38268						
776-	MPC	5080	1	-1	100700	1	1.00000			EM508011
777-	EM508011	1	100701	1 0.70711	100702		1 0.00000			EM508021
778-	EM508021	1	100703	1-3.70711						
779-	MPC	5081	1	-1	100700	1	1.00000			EM508111
780-	EM508111	1	100701	1 3.38268	100702		1-0.70711			EM508121
781-	EM508121	1	100703	1-0.92338						
782-	MPC	5082	1	-1	100700	1	1.00000			EM508211
783-	EM508211	1	100701	1 0.00000	100702		1-1.00000			EM508221
784-	EM508221	1	100703	1-3.00000						
785-	MPC	5083	1	-1	100700	1	1.00000			EM508311
786-	EM508311	1	100701	1-3.38268	100702		1-0.70711			EM508321
787-	EM508321	1	100703	1 0.92338						
788-	MPC	5084	1	-1	100700	1	1.00000			EM508411
789-	EM508411	1	100701	1-3.70711	100702		1-0.00000			EM508421
790-	EM508421	1	100703	1 3.70711						
791-	MPC	5085	1	-1	100700	1	1.00000			EM508511
792-	EM508511	1	100701	1-0.92338	100702		1 0.70711			EM508521
793-	EM508521	1	100703	1-3.38268						
794-	MPC	5086	1	-1	100700	1	1.00000			EM508611
795-	EM508611	1	100701	1-1.00000	100702		1 1.00000			EM508621
796-	EM508621	1	100703	1-1.00000						
797-	MPC	5091	1	-1	100800	1	1.00000			EM509111
798-	EM509111	1	100801	1 1.00030	100802		1 1.00000			EM509121
799-	EM509121	1	100803	1 1.00030						
800-	MPC	5092	1	-1	100800	1	1.00000			EM509211

Volume II

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CARD		1	2	3	4	5	6	7	8	9	10
COUNT											
801-	EM509211			100801		1 0.92388	100802		1 0.70711		EM509221
802-	EM509221			100803		1 0.38268					
803-	MPC		5093	1		-1.	100800	1	1.00000		EM509311
804-	EM509311			100801		1 0.70711	100802		1 0.00000		EM509321
805-	EM509321			100803		-1-0.70711					
806-	MPC		5094	1		-1.	100800	1	1.00000		EM509411
807-	EM509411			100801		1 0.38268	100802		1-0.70711		EM509421
808-	EM509421			100803		1-0.92388					
809-	MPC		5095	1		-1.	100800	1	1.00000		EM509511
810-	EM509511			100801		1 0.00000	100802		1-1.00000		EM509521
811-	EM509521			100803		1-0.00000					
812-	MPC		5096	1		-1.	100800	1	1.00000		EM509611
813-	EM509611			100801		1-0.38268	100802		1-0.70711		EM509621
814-	EM509621			100803		1 0.92388					
815-	MPC		5097	1		-1.	100800	1	1.00000		EM509711
816-	EM509711			100801		1-0.70711	100802		1-0.00000		EM509721
817-	EM509721			100803		1 0.70711					
818-	MPC		5098	1		-1.	100800	1	1.00000		EM509811
819-	EM509811			100801		1-0.92388	100802		1 0.70711		EM509821
820-	EM509821			100803		1-0.38268					
821-	MPC		5099	1		-1.	100800	1	1.00000		EM509911
822-	EM509911			100801		1-1.00000	100802		1 1.00000		EM509921
823-	EM509921			100803		1-1.00000					
824-	MPC		5104	1		-1.	100900	1	1.00000		EM510411
825-	EM510411			100901		1 1.00000	100902		1 1.00000		EM510421
826-	EM510421			100903		1 1.00000					
827-	MPC		5105	1		-1.	100900	1	1.00000		EM510511
828-	EM510511			100901		1 0.92388	100902		1 0.70711		EM510521
829-	EM510521			100903		1 0.38268					
830-	MPC		5106	1		-1.	100900	1	1.00000		EM510611
831-	EM510611			100901		1 0.70711	100902		1 0.00000		EM510621
832-	EM510621			100903		1-0.70711					
833-	MPC		5107	1		-1.	100900	1	1.00000		EM510711
834-	EM510711			100901		1 0.38268	100902		1-0.70711		EM510721
835-	EM510721			100903		1-0.92388					
836-	MPC		5108	1		-1.	100900	1	1.00000		EM510811
837-	EM510811			100901		1 0.00000	100902		1-1.00000		EM510821
838-	EM510821			100903		1-0.00000					
839-	MPC		5109	1		-1.	100900	1	1.00000		EM510911
840-	EM510911			100901		1-0.38268	100902		1-0.70711		EM510921
841-	EM510921			100903		1 0.92388					
842-	MPC		5110	1		-1.	100900	1	1.00000		EM511011
843-	EM511011			100901		1-0.70711	100902		1-0.00000		EM511021
844-	EM511021			100903		1 0.70711					
845-	MPC		5111	1		-1.	100900	1	1.00000		EM511111
846-	EM511111			100901		1-0.92388	100902		1 0.70711		EM511121
847-	EM511121			100903		1-0.38268					
848-	MPC		5112	1		-1.	100900	1	1.00000		EM511211
849-	EM511211			100901		1-1.00000	100902		1 1.00000		EM511221
850-	EM511221			100903		1-1.00000					

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
851-	MPC	5117	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
852-	EM511711	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
853-	EM511721	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
854-	MPC	5118	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
855-	EM511811	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
856-	EM511821	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
857-	MPC	5119	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
858-	EM511911	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
859-	EM511921	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
860-	MPC	5120	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
861-	EM512011	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
862-	EM512021	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
863-	MPC	5121	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
864-	EM512111	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
865-	EM512121	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
866-	MPC	5122	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
867-	EM512211	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
868-	EM512221	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
869-	MPC	5123	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
870-	EM512311	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
871-	EM512321	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
872-	MPC	5124	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
873-	EM512411	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
874-	EM512421	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
875-	MPC	5125	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
876-	EM512511	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
877-	EM512521	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
878-	MPC	5126	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
879-	EM512611	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
880-	EM512621	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
881-	MPC	5130	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
882-	EM513011	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
883-	EM513021	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
884-	MPC	5131	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
885-	EM513111	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
886-	EM513121	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
887-	MPC	5132	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
888-	EM513211	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
889-	EM513221	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
890-	MPC	5133	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
891-	EM513311	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
892-	EM513321	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
893-	MPC	5134	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
894-	EM513411	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
895-	EM513421	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
896-	MPC	5135	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
897-	EM513511	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
898-	EM513521	101003	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000
899-	MPC	5136	1	-1.	101000	1	1.00000	1.00000	1.00000	1.00000
900-	EM513611	101001	1	1.00000	101002	1	1.00000	1.00000	1.00000	1.00000

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CARD	1	2	3	4	5	6	7	8	9	10
901-	EM513621	1	101103	1	101103	1	101103	1	101103	1
902-	MPC	5137	1	1	101100	1	101100	1	101100	1
903-	EM513711	1	101101	1	101101	1	101101	1	101101	1
904-	EM513721	1	101103	1	101103	1	101103	1	101103	1
905-	MPC	5138	1	1	101100	1	101100	1	101100	1
906-	EM513811	1	101101	1	101101	1	101101	1	101101	1
907-	EM513821	1	101103	1	101103	1	101103	1	101103	1
908-	MPC	5143	1	1	101200	1	101200	1	101200	1
909-	EM514311	1	101201	1	101201	1	101201	1	101201	1
910-	EM514321	1	101203	1	101203	1	101203	1	101203	1
911-	MPC	5144	1	1	101200	1	101200	1	101200	1
912-	EM514411	1	101201	1	101201	1	101201	1	101201	1
913-	EM514421	1	101203	1	101203	1	101203	1	101203	1
914-	MPC	5145	1	1	101200	1	101200	1	101200	1
915-	EM514511	1	101201	1	101201	1	101201	1	101201	1
916-	EM514521	1	101203	1	101203	1	101203	1	101203	1
917-	MPC	5146	1	1	101200	1	101200	1	101200	1
918-	EM514611	1	101201	1	101201	1	101201	1	101201	1
919-	EM514621	1	101203	1	101203	1	101203	1	101203	1
920-	MPC	5147	1	1	101200	1	101200	1	101200	1
921-	EM514711	1	101201	1	101201	1	101201	1	101201	1
922-	EM514721	1	101203	1	101203	1	101203	1	101203	1
923-	MPC	5148	1	1	101200	1	101200	1	101200	1
924-	EM514811	1	101201	1	101201	1	101201	1	101201	1
925-	EM514821	1	101203	1	101203	1	101203	1	101203	1
926-	MPC	5149	1	1	101200	1	101200	1	101200	1
927-	EM514911	1	101201	1	101201	1	101201	1	101201	1
928-	EM514921	1	101203	1	101203	1	101203	1	101203	1
929-	MPC	5150	1	1	101200	1	101200	1	101200	1
930-	EM515011	1	101201	1	101201	1	101201	1	101201	1
931-	EM515021	1	101203	1	101203	1	101203	1	101203	1
932-	MPC	5151	1	1	101200	1	101200	1	101200	1
933-	EM515111	1	101201	1	101201	1	101201	1	101201	1
934-	EM515121	1	101203	1	101203	1	101203	1	101203	1
935-	MPC	5156	1	1	101300	1	101300	1	101300	1
936-	EM515611	1	101301	1	101301	1	101301	1	101301	1
937-	EM515621	1	101303	1	101303	1	101303	1	101303	1
938-	MPC	5157	1	1	101300	1	101300	1	101300	1
939-	EM515711	1	101301	1	101301	1	101301	1	101301	1
940-	EM515721	1	101303	1	101303	1	101303	1	101303	1
941-	MPC	5158	1	1	101300	1	101300	1	101300	1
942-	EM515811	1	101301	1	101301	1	101301	1	101301	1
943-	EM515821	1	101303	1	101303	1	101303	1	101303	1
944-	MPC	5159	1	1	101300	1	101300	1	101300	1
945-	EM515911	1	101301	1	101301	1	101301	1	101301	1
946-	EM515921	1	101303	1	101303	1	101303	1	101303	1
947-	MPC	5160	1	1	101300	1	101300	1	101300	1
948-	EM516011	1	101301	1	101301	1	101301	1	101301	1
949-	EM516021	1	101303	1	101303	1	101303	1	101303	1
950-	MPC	5161	1	1	101300	1	101300	1	101300	1

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CARD	1	2	3	4	5	6	7	8	9	10
951-	CM516111	101301	101301	1-0.38268	101302	1-0.70711				CM516121
952-	CM516121	101303	101303	1-0.92388						
953-	MPC	5162	1	-1.	101300	1	1.00000			CM516211
954-	CM516211	101301	101301	1-0.70711	101302	1-0.00000				CM516221
955-	CM516221	101303	101303	1-0.70711						
956-	MPC	5163	1	-1.	101300	1	1.00000			CM516311
957-	CM516311	101301	101301	1-0.92388	101302	1-0.70711				CM516321
958-	CM516321	101303	101303	1-0.38268						
959-	MPC	5164	1	-1.	101300	1	1.00000			CM516411
960-	CM516411	101301	101301	1-1.00000	101302	1-1.00000				CM516421
961-	CM516421	101303	101303	1-1.00000						
962-	MPC	5169	1	-1.	101400	1	1.00000			CM516911
963-	CM516911	101401	101401	1-1.00000	101402	1-1.00000				CM516921
964-	CM516921	101403	101403	1-1.00000						
965-	MPC	5170	1	-1.	101400	1	1.00000			CM517011
966-	CM517011	101401	101401	1-0.92388	101402	1-0.70711				CM517021
967-	CM517021	101403	101403	1-0.38268						
968-	MPC	5171	1	-1.	101400	1	1.00000			CM517111
969-	CM517111	101401	101401	1-0.70711	101402	1-0.00000				CM517121
970-	CM517121	101403	101403	1-0.70711						
971-	MPC	5172	1	-1.	101400	1	1.00000			CM517211
972-	CM517211	101401	101401	1-0.38268	101402	1-0.70711				CM517221
973-	CM517221	101403	101403	1-0.92388						
974-	MPC	5173	1	-1.	101400	1	1.00000			CM517311
975-	CM517311	101401	101401	1-0.00000	101402	1-1.00000				CM517321
976-	CM517321	101403	101403	1-0.00000						
977-	MPC	5174	1	-1.	101400	1	1.00000			CM517411
978-	CM517411	101401	101401	1-0.38268	101402	1-0.70711				CM517421
979-	CM517421	101403	101403	1-0.92388						
980-	MPC	5175	1	-1.	101400	1	1.00000			CM517511
981-	CM517511	101401	101401	1-0.70711	101402	1-0.00000				CM517521
982-	CM517521	101403	101403	1-0.70711						
983-	MPC	5176	1	-1.	101400	1	1.00000			CM517611
984-	CM517611	101401	101401	1-0.92388	101402	1-0.70711				CM517621
985-	CM517621	101403	101403	1-0.38268						
986-	MPC	5177	1	-1.	101400	1	1.00000			CM517711
987-	CM517711	101401	101401	1-1.00000	101402	1-1.00000				CM517721
988-	CM517721	101403	101403	1-1.00000						
989-	MPC	5182	1	-1.	101500	1	1.00000			CM518211
990-	CM518211	101501	101501	1-1.00000	101502	1-1.00000				CM518221
991-	CM518221	101503	101503	1-1.00000						
992-	MPC	5183	1	-1.	101500	1	1.00000			CM518311
993-	CM518311	101501	101501	1-0.92388	101502	1-0.70711				CM518321
994-	CM518321	101503	101503	1-0.38268						
995-	MPC	5184	1	-1.	101500	1	1.00000			CM518411
996-	CM518411	101501	101501	1-0.70711	101502	1-0.00000				CM518421
997-	CM518421	101503	101503	1-0.70711						
998-	MPC	5185	1	-1.	101500	1	1.00000			CM518511
999-	CM518511	101501	101501	1-0.38268	101502	1-0.70711				CM518521
1000-	CM518521	101503	101503	1-0.92388						

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
1001-	MPC	1	5186	1	-1.	101500	1	1.00000		CM518611
1002-	CM518621		101501		1 0.00000	101502		1-1.00000		CM518621
1003-	MPC	1	5187	1	-1.	101500	1	1.00000		CM518711
1004-	CM518721		101501		1-3.38268	10.502		1-0.70711		CM518721
1005-	MPC	1	5188	1	-1.	101500	1	1.00000		CM518811
1006-	CM518821		101501		1 0.70711	101502		1-0.00000		CM518821
1007-	MPC	1	5189	1	-1.	101500	1	1.00000		CM518911
1008-	CM518921		101501		1-3.38268	101502		1 0.70711		CM518921
1009-	MPC	1	5190	1	-1.	101500	1	1.00000		CM519011
1010-	CM519021		101501		1-1.00000	101502		1 1.00000		CM519021
1011-	MPC	1	5191	1	-1.	101600	1	1.00000		CM519111
1012-	CM519121		101601		1 1.00000	101602		1 1.00000		CM519121
1013-	MPC	1	5192	1	-1.	101600	1	1.00000		CM519211
1014-	CM519221		101601		1 0.92338	101602		1 0.70711		CM519221
1015-	MPC	1	5193	1	-1.	101600	1	1.00000		CM519311
1016-	CM519321		101601		1 0.92338	101602		1 0.70711		CM519321
1017-	MPC	1	5194	1	-1.	101600	1	1.00000		CM519411
1018-	CM519421		101601		1 0.92338	101602		1 0.70711		CM519421
1019-	MPC	1	5195	1	-1.	101600	1	1.00000		CM519511
1020-	CM519521		101601		1 1.00000	101602		1 1.00000		CM519521
1021-	MPC	1	5196	1	-1.	101600	1	1.00000		CM519611
1022-	CM519621		101601		1 0.92338	101602		1 0.70711		CM519621
1023-	MPC	1	5197	1	-1.	101600	1	1.00000		CM519711
1024-	CM519721		101601		1 0.70711	101602		1 0.00000		CM519721
1025-	MPC	1	5198	1	-1.	101600	1	1.00000		CM519811
1026-	CM519821		101601		1 3.38268	101602		1-0.70711		CM519821
1027-	MPC	1	5199	1	-1.	101600	1	1.00000		CM519911
1028-	CM519921		101601		1 0.00000	101602		1-1.00000		CM519921
1029-	MPC	1	5200	1	-1.	101600	1	1.00000		CM520011
1030-	CM520021		101601		1-3.38268	101602		1-0.70711		CM520021
1031-	MPC	1	5201	1	-1.	101600	1	1.00000		CM520111
1032-	CM520121		101601		1-0.70711	101602		1-0.00000		CM520121
1033-	MPC	1	5202	1	-1.	101600	1	1.00000		CM520211
1034-	CM520221		101601		1-3.38268	101602		1 0.70711		CM520221
1035-	MPC	1	5203	1	-1.	101600	1	1.00000		CM520311
1036-	CM520321		101601		1-1.00000	101602		1 1.00000		CM520321
1037-	MPC	1	8070	1	-1.	110400	1	1.00000		CM807011
1038-	CM807021		110401		1 1.00000	110402		1 1.00000		CM807021
1039-	MPC	1	8071	1	-1.	110400	1	1.00000		CM807111
1040-	CM807121		110401		1 3.38268	110402		1 0.70711		CM807121
1041-	MPC	1	8072	1	-1.	110400	1	1.00000		CM807211
1042-	CM807221		110401		1 0.70711	110402		1 0.00000		CM807221

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CARD	1	2	3	4	5	6	7	8	9	10
1051- EM807221 MPC	1	8073	110403	1-0.70711						
1052- EM807311	1	110401	110400	1	1.00000					EM807311
1053- EM807321	1	110403	110402	1	1-0.70711					EM807321
1054- MPC	1	8074	110403	1-0.92338						
1055- EM807411	1	110401	110400	1	1.00000					EM807411
1056- EM807421	1	110403	110402	1	1-0.92213					EM807421
1058- MPC	1	8075	110403	1-0.56122						
1059- EM807511	1	110401	110400	1	1.00000					EM807511
1060- EM807521	1	110403	110402	1	1-1.00000					EM807521
1061- MPC	1	8076	110403	1-0.00000						
1062- EM807611	1	110401	110400	1	1.00000					EM807611
1063- EM807621	1	110403	110402	1	1-0.70711					EM807621
1064- MPC	1	8077	110403	1-0.92338						
1065- EM807711	1	110401	110400	1	1.00000					EM807711
1066- EM807721	1	110403	110402	1	1-0.00000					EM807721
1067- MPC	1	8078	110403	1-0.70711						
1068- EM807811	1	110401	110400	1	1.00000					EM807811
1069- EM807821	1	110403	110402	1	1 0.70711					EM807821
1070- MPC	1	8079	110403	1-0.38268						
1071- EM807911	1	110401	110400	1	1.00000					EM807911
1072- EM807921	1	110403	110402	1	1.00000					EM807921
1073- MPC	1	8110	110403	1-1.00000						
1074- EM811011	1	110401	110400	1	1.00000					EM811011
1075- EM811021	1	110403	110402	1	1.00000					EM811021
1076- MPC	1	8111	110403	1-1.00000						
1077- EM811111	1	110401	110400	1	1.00000					EM811111
1078- EM811121	1	110403	110402	1	1 0.70711					EM811121
1079- MPC	1	8112	110403	1-0.38268						
1080- EM811211	1	110401	110400	1	1.00000					EM811211
1081- EM811221	1	110403	110402	1	1 0.00000					EM811221
1082- MPC	1	8113	110403	1-0.70711						
1083- EM811311	1	110401	110400	1	1.00000					EM811311
1084- EM811321	1	110403	110402	1	1-0.70711					EM811321
1085- MPC	1	8114	110403	1-0.92338						
1086- EM811411	1	110401	110400	1	1.00000					EM811411
1087- EM811421	1	110403	110402	1	1-0.92213					EM811421
1088- MPC	1	8115	110403	1-0.56122						
1089- EM811511	1	110401	110400	1	1.00000					EM811511
1090- EM811521	1	110403	110402	1	1-1.00000					EM811521
1091- MPC	1	8116	110403	1-0.00000						
1092- EM811611	1	110401	110400	1	1.00000					EM811611
1093- EM811621	1	110403	110402	1	1-0.70711					EM811621
1094- MPC	1	8117	110403	1-0.92338						
1095- EM811711	1	110401	110400	1	1.00000					EM811711
1096- EM811721	1	110403	110402	1	1-0.00000					EM811721
1097- MPC	1	8118	110403	1-0.70711						
1098- EM811811	1	110401	110400	1	1.00000					EM811811
1099- EM811821	1	110403	110402	1	1 0.70711					EM811821
1100- MPC	1	8119	110403	1-0.38268						
1101- EM811911	1	110401	110400	1	1.00000					EM811911

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CARD	1	2	3	4	5	6	7	8	9	10
1101-	EM811911	110101	110101	1-1.00000	110102	110102	110102	110102	110102	EM811921
1102-	EM811921	110103	110103	1-1.00000	110103	110103	110103	110103	110103	EM811931
1103-	MPC	8130	1	-1.	110200	110200	110200	110200	110200	EM813011
1104-	EM813011	110201	110201	1-1.00000	110202	110202	110202	110202	110202	EM813021
1105-	EM813021	110203	110203	1-1.00000	110203	110203	110203	110203	110203	EM813111
1106-	MPC	8131	1	-1.	110200	110200	110200	110200	110200	EM813121
1107-	EM813111	110201	110201	1-0.92388	110202	110202	110202	110202	110202	EM813121
1108-	EM813121	110203	110203	1-0.92388	110203	110203	110203	110203	110203	EM813211
1109-	MPC	8132	1	-1.	110200	110200	110200	110200	110200	EM813221
1110-	EM813211	110201	110201	1-0.70711	110202	110202	110202	110202	110202	EM813221
1111-	EM813221	110203	110203	1-0.70711	110203	110203	110203	110203	110203	EM813311
1112-	MPC	8133	1	-1.	110200	110200	110200	110200	110200	EM813321
1113-	EM813311	110201	110201	1-0.38268	110202	110202	110202	110202	110202	EM813321
1114-	EM813321	110203	110203	1-0.38268	110203	110203	110203	110203	110203	EM813411
1115-	MPC	8134	1	-1.	110200	110200	110200	110200	110200	EM813421
1116-	EM813411	110201	110201	1-0.19732	110202	110202	110202	110202	110202	EM813421
1117-	EM813421	110203	110203	1-0.56122	110203	110203	110203	110203	110203	EM813511
1118-	MPC	8135	1	-1.	110200	110200	110200	110200	110200	EM813521
1119-	EM813511	110201	110201	1-0.00000	110202	110202	110202	110202	110202	EM813611
1120-	EM813521	110203	110203	1-0.00000	110203	110203	110203	110203	110203	EM813621
1121-	MPC	8136	1	-1.	110200	110200	110200	110200	110200	EM813711
1122-	EM813611	110201	110201	1-0.38268	110202	110202	110202	110202	110202	EM813721
1123-	EM813621	110203	110203	1-0.92388	110203	110203	110203	110203	110203	EM813811
1124-	MPC	8137	1	-1.	110200	110200	110200	110200	110200	EM813821
1125-	EM813711	110201	110201	1-0.70711	110202	110202	110202	110202	110202	EM813911
1126-	EM813721	110203	110203	1-0.70711	110203	110203	110203	110203	110203	EM813921
1127-	MPC	8138	1	-1.	110200	110200	110200	110200	110200	EM813921
1128-	EM813811	110201	110201	1-0.92388	110202	110202	110202	110202	110202	EM813921
1129-	EM813821	110203	110203	1-0.38268	110203	110203	110203	110203	110203	EM813921
1130-	MPC	8139	1	-1.	110200	110200	110200	110200	110200	EM813921
1131-	EM813911	110201	110201	1-1.00000	110202	110202	110202	110202	110202	EM815011
1132-	EM813921	110203	110203	1-1.00000	110203	110203	110203	110203	110203	EM815021
1133-	MPC	8150	1	-1.	110300	110300	110300	110300	110300	EM815021
1134-	EM815011	110301	110301	1-1.00000	110302	110302	110302	110302	110302	EM815111
1135-	EM815021	110303	110303	1-1.00000	110303	110303	110303	110303	110303	EM815121
1136-	MPC	8151	1	-1.	110300	110300	110300	110300	110300	EM815211
1137-	EM815111	110301	110301	1-0.92388	110302	110302	110302	110302	110302	EM815221
1138-	EM815121	110303	110303	1-0.38268	110303	110303	110303	110303	110303	EM815221
1139-	MPC	8152	1	-1.	110300	110300	110300	110300	110300	EM815311
1140-	EM815211	110301	110301	1-0.70711	110302	110302	110302	110302	110302	EM815321
1141-	EM815221	110303	110303	1-0.70711	110303	110303	110303	110303	110303	EM815321
1142-	MPC	8153	1	-1.	110300	110300	110300	110300	110300	EM815411
1143-	EM815311	110301	110301	1-0.38268	110302	110302	110302	110302	110302	EM815421
1144-	EM815321	110303	110303	1-0.92388	110303	110303	110303	110303	110303	EM815421
1145-	MPC	8154	1	-1.	110300	110300	110300	110300	110300	EM815511
1146-	EM815411	110301	110301	1-0.19732	110302	110302	110302	110302	110302	EM815521
1147-	EM815421	110303	110303	1-0.56122	110303	110303	110303	110303	110303	EM815521
1148-	MPC	8155	1	-1.	110300	110300	110300	110300	110300	EM815521
1149-	EM815511	110301	110301	1-0.00000	110302	110302	110302	110302	110302	EM815521
1150-	EM815521	110303	110303	1-0.00000	110303	110303	110303	110303	110303	EM815521

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
1151-	MP	8156	1	-1.	110300	1	1.00000		EM815611	
1152-	EM815611	110301	1	1-0.38268	110302	1	1-0.70711		EM815621	
1153-	EM815621	110303	1	1-0.92368						
1154-	MP	8157	1	-1.	110300	1	1.00000		EM815711	
1155-	EM815711	110301	1	1-0.70711	110302	1	1-0.00000		EM815721	
1156-	EM815721	110303	1	1-0.70711						
1157-	MP	8158	1	-1.	110300	1	1.00000		EM815811	
1158-	EM815811	110301	1	1-0.92368	110302	1	1-0.70711		EM815821	
1159-	EM815821	110303	1	1-0.38268						
1160-	MP	8159	1	-1.	110300	1	1.00000		EM815911	
1161-	EM815911	110301	1	1-1.00000	110302	1	1.00000		EM815921	
1162-	EM815921	110303	1	1-1.00000						
1163-	MP	8170	1	-1.	110500	1	1.00000		EM817011	
1164-	EM817011	110501	1	1-1.00000	110502	1	1.00000		EM817021	
1165-	EM817021	110503	1	1.00000						
1166-	MP	8171	1	-1.	110500	1	1.00000		EM817111	
1167-	EM817111	110501	1	1-0.92368	110502	1	1-0.70711		EM817121	
1168-	EM817121	110503	1	1-0.38268						
1169-	MP	8172	1	-1.	110500	1	1.00000		EM817211	
1170-	EM817211	110501	1	1-0.70711	110502	1	1.00000		EM817221	
1171-	EM817221	110503	1	1-0.70711						
1172-	MP	8173	1	-1.	110500	1	1.00000		EM817311	
1173-	EM817311	110501	1	1-0.38268	110502	1	1-0.70711		EM817321	
1174-	EM817321	110503	1	1-0.92368						
1175-	MP	8174	1	-1.	110500	1	1.00000		EM817411	
1176-	EM817411	110501	1	1.00000	110502	1	1.00000		EM817421	
1177-	EM817421	110503	1	1-0.00000						
1178-	MP	8175	1	-1.	110500	1	1.00000		EM817511	
1179-	EM817511	110501	1	1-0.38268	110502	1	1-0.70711		EM817521	
1180-	EM817521	110503	1	1-0.92368						
1181-	MP	8176	1	-1.	110500	1	1.00000		EM817611	
1182-	EM817611	110501	1	1-0.70711	110502	1	1.00000		EM817621	
1183-	EM817621	110503	1	1-0.70711						
1184-	MP	8177	1	-1.	110500	1	1.00000		EM817711	
1185-	EM817711	110501	1	1-0.92368	110502	1	1-0.70711		EM817721	
1186-	EM817721	110503	1	1-0.38268						
1187-	MP	8178	1	-1.	110500	1	1.00000		EM817811	
1188-	EM817811	110501	1	1-1.00000	110502	1	1.00000		EM817821	
1189-	EM817821	110503	1	1-1.00000						
1190-	MP	8190	1	-1.	110600	1	1.00000		EM819011	
1191-	EM819011	110601	1	1-1.00000	110602	1	1.00000		EM819021	
1192-	EM819021	110603	1	1.00000						
1193-	MP	8191	1	-1.	110600	1	1.00000		EM819111	
1194-	EM819111	110601	1	1-0.92368	110602	1	1-0.70711		EM819121	
1195-	EM819121	110603	1	1-0.38268						
1196-	MP	8192	1	-1.	110600	1	1.00000		EM819211	
1197-	EM819211	110601	1	1-0.70711	110602	1	1.00000		EM819221	
1198-	EM819221	110603	1	1-0.70711						
1199-	MP	8193	1	-1.	110600	1	1.00000		EM819311	
1200-	EM819311	110601	1	1-0.38268	110602	1	1-0.70711		EM819321	

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CARD	1	2	3	4	5	6	7	8	9	10
1201-	CM819321	1	110603	1	1-0.92388	1	110600	1	1-0.00000	CM819411
1202-	MPC	8194	1	-1.	-1.	110600	1	1-1.00000	CM819421	CM819411
1203-	CM819411	1	110601	1	1-0.00000	110602	1	1-1.00000	CM819421	CM819411
1204-	CM819421	1	110603	1	1-0.00000	110600	1	1-0.00000	CM819511	CM819511
1205-	MPC	8195	1	-1.	-1.	110600	1	1-0.00000	CM819521	CM819511
1206-	CM819511	1	110601	1	1-0.38258	110602	1	1-0.70711	CM819521	CM819511
1207-	CM819521	1	110603	1	1-0.92388	110600	1	1-0.00000	CM819611	CM819611
1208-	MPC	8196	1	-1.	-1.	110600	1	1-0.00000	CM819621	CM819611
1209-	CM819611	1	110601	1	1-0.70711	110602	1	1-0.00000	CM819711	CM819711
1210-	CM819621	1	110603	1	1-0.70711	110600	1	1-0.70711	CM819721	CM819711
1211-	MPC	8197	1	-1.	-1.	110600	1	1-0.00000	CM819811	CM819811
1212-	CM819711	1	110601	1	1-0.92388	110602	1	1-0.00000	CM819821	CM819811
1213-	CM819721	1	110603	1	1-0.38258	110600	1	1-0.00000	CM821011	CM821011
1214-	MPC	8198	1	-1.	-1.	110600	1	1-0.00000	CM821021	CM821011
1215-	CM819811	1	110601	1	1-1.00000	110602	1	1-0.00000	CM821111	CM821111
1216-	CM819821	1	110603	1	1-1.00000	110600	1	1-0.00000	CM821121	CM821111
1217-	MPC	8210	1	-1.	-1.	110700	1	1-0.00000	CM821211	CM821211
1218-	CM821011	1	110701	1	1-1.00000	110702	1	1-0.00000	CM821221	CM821211
1219-	CM821021	1	110703	1	1-1.00000	110700	1	1-0.70711	CM821311	CM821311
1220-	MPC	8211	1	-1.	-1.	110700	1	1-0.00000	CM821321	CM821311
1221-	CM821111	1	110701	1	1-0.92388	110702	1	1-0.00000	CM821411	CM821411
1222-	CM821121	1	110703	1	1-0.38258	110700	1	1-1.00000	CM821421	CM821411
1223-	MPC	8212	1	-1.	-1.	110700	1	1-0.00000	CM821511	CM821511
1224-	CM821211	1	110701	1	1-0.70711	110702	1	1-0.00000	CM821521	CM821511
1225-	CM821221	1	110703	1	1-0.70711	110700	1	1-0.00000	CM821611	CM821611
1226-	MPC	8213	1	-1.	-1.	110700	1	1-0.00000	CM821621	CM821611
1227-	CM821311	1	110701	1	1-0.38258	110702	1	1-0.00000	CM821711	CM821711
1228-	CM821321	1	110703	1	1-0.92388	110700	1	1-0.00000	CM821721	CM821711
1229-	MPC	8214	1	-1.	-1.	110700	1	1-0.00000	CM821811	CM821811
1230-	CM821411	1	110701	1	1-0.00000	110702	1	1-1.00000	CM821821	CM821811
1231-	CM821421	1	110703	1	1-0.00000	110700	1	1-0.00000	CM821911	CM821911
1232-	MPC	8215	1	-1.	-1.	110700	1	1-0.00000	CM821921	CM821911
1233-	CM821511	1	110701	1	1-0.38258	110702	1	1-0.00000	CM822011	CM822011
1234-	CM821521	1	110703	1	1-0.92388	110700	1	1-0.00000	CM822021	CM822011
1235-	MPC	8216	1	-1.	-1.	110700	1	1-0.00000	CM822111	CM822111
1236-	CM821611	1	110701	1	1-0.70711	110702	1	1-0.00000	CM822121	CM822111
1237-	CM821621	1	110703	1	1-0.70711	110700	1	1-0.00000	CM822211	CM822211
1238-	MPC	8217	1	-1.	-1.	110700	1	1-0.00000	CM8223011	CM8223011
1239-	CM821711	1	110701	1	1-0.92388	110702	1	1-0.70711	CM8223021	CM8223011
1240-	CM821721	1	110703	1	1-0.38258	110700	1	1-0.00000	CM822311	CM8223011
1241-	MPC	8218	1	-1.	-1.	110700	1	1-0.00000	CM8223121	CM822311
1242-	CM821811	1	110701	1	1-1.00000	110702	1	1-0.00000	CM822321	CM822311
1243-	CM821821	1	110703	1	1-1.00000	110700	1	1-0.00000	CM8223221	CM822321
1244-	MPC	8230	1	-1.	-1.	110800	1	1-0.00000	CM8223231	CM822321
1245-	CM8223011	1	110801	1	1-1.00000	110802	1	1-0.00000	CM8223241	CM822321
1246-	CM8223021	1	110803	1	1-1.00000	110800	1	1-0.00000	CM8223251	CM822321
1247-	MPC	8231	1	-1.	-1.	110800	1	1-0.00000	CM8223261	CM822321
1248-	CM8223111	1	110801	1	1-0.92388	110802	1	1-0.70711	CM8223271	CM822321
1249-	CM8223121	1	110803	1	1-0.38258	110800	1	1-0.00000	CM8223281	CM822321
1250-	MPC	8232	1	-1.	-1.	110800	1	1-0.00000	CM8223291	CM822321

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CARD	1	2	3	4	5	6	7	8	9	10
1251-	CM823211	1	110801	1	0.70711	110802	1	0.00000	CM823221	
1252-	CM823221	1	110903	1	0.70711					
1253-	MPC	8233	1	-1.	110800	1	1.00000	1-0.70711	CM823311	CM823321
1254-	CM823311	1	110801	1	3.38268	110802	1	1.00000		
1255-	CM823321	1	110803	1	3.92338					
1256-	MPC	8234	1	-1.	110800	1	1.00000	1-1.00000	CM823411	CM823421
1257-	CM823411	1	110801	1	3.00000	110802	1	1.00000		
1258-	CM823421	1	110803	1	3.00000					
1259-	MPC	8235	1	-1.	110800	1	1.00000	1-0.70711	CM823511	CM823521
1260-	CM823511	1	110801	1	3.38268	110802	1	1.00000		
1261-	CM823521	1	110803	1	0.92338					
1262-	MPC	8236	1	-1.	110800	1	1.00000	1-0.00000	CM823611	CM823621
1263-	CM823611	1	110801	1	3.70711	110802	1	1.00000		
1264-	CM823621	1	110803	1	3.70711					
1265-	MPC	8237	1	-1.	110800	1	1.00000	1 0.70711	CM823711	CM823721
1266-	CM823711	1	110801	1	0.92338	110802	1	1.00000		
1267-	CM823721	1	110803	1	3.38268					
1268-	MPC	8238	1	-1.	110800	1	1.00000	1 1.00000	CM823811	CM823821
1269-	CM823811	1	110801	1	1.00000	110802	1	1.00000		
1270-	CM823821	1	110803	1	1.00000					
1271-	MPC	8250	1	-1.	110900	1	1.00000	1 1.00000	CM825011	CM825021
1272-	CM825011	1	110901	1	1.00000	110902	1	1.00000		
1273-	CM825021	1	110903	1	1.00000					
1274-	MPC	8251	1	-1.	110900	1	1.00000	1 0.70711	CM825111	CM825121
1275-	CM825111	1	110901	1	0.92338	110902	1	1.00000		
1276-	CM825121	1	110903	1	3.38268					
1277-	MPC	8252	1	-1.	110900	1	1.00000	1 1.00000	CM825211	CM825221
1278-	CM825211	1	110901	1	3.70711	110902	1	1.00000		
1279-	CM825221	1	110903	1	3.70711					
1280-	MPC	8253	1	-1.	110900	1	1.00000	1-0.70711	CM825311	CM825321
1281-	CM825311	1	110901	1	3.38268	110902	1	1.00000		
1282-	CM825321	1	110903	1	3.92338					
1283-	MPC	8254	1	-1.	110900	1	1.00000	1-1.00000	CM825411	CM825421
1284-	CM825411	1	110901	1	3.00000	110902	1	1.00000		
1285-	CM825421	1	110903	1	3.00000					
1286-	MPC	8255	1	-1.	110900	1	1.00000	1-0.70711	CM825511	CM825521
1287-	CM825511	1	110901	1	3.38268	110902	1	1.00000		
1288-	CM825521	1	110903	1	3.92338					
1289-	MPC	8256	1	-1.	110900	1	1.00000	1-0.00000	CM825611	CM825621
1290-	CM825611	1	110901	1	3.70711	110902	1	1.00000		
1291-	CM825621	1	110903	1	3.70711					
1292-	MPC	8257	1	-1.	110900	1	1.00000	1 0.70711	CM825711	CM825721
1293-	CM825711	1	110901	1	0.92338	110902	1	1.00000		
1294-	CM825721	1	110903	1	3.38268					
1295-	MPC	8258	1	-1.	110900	1	1.00000	1 1.00000	CM825811	CM825821
1296-	CM825811	1	110901	1	1.00000	110902	1	1.00000		
1297-	CM825821	1	110903	1	1.00000					
1298-	MPC	8270	1	-1.	111000	1	1.00000	1 1.00000	CM827011	CM827021
1299-	CM827011	1	111001	1	1.00000	111002	1	1.00000		
1300-	CM827021	1	111003	1	1.00000					

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CARD	1	2	3	4	5	6	7	8	9	10
C333										
1301	MPC	8271	1	-1.	111000	1	1.00000	1	0.7C711	CM827111
1302	CM827111	111001	1	1.0.92388	111002	1	1.00000	1	0.7C711	CM827121
1303	CM827121	111003	1	1.0.38268						CM827211
1304	MPC	8272	1	-1.	111000	1	1.00000	1	0.00000	CM827221
1305	CM827211	111001	1	1.0.70711	111002	1	1.00000	1	0.7C711	CM827311
1306	CM827221	111003	1	1.0.70711						CM827321
1307	MPC	8273	1	-1.	111000	1	1.00000	1	0.7C711	CM827411
1308	CM827311	111001	1	1.0.38268	111002	1	1.00000	1	0.00000	CM827421
1309	CM827321	111003	1	1.0.92388						CM827511
1310	MPC	8274	1	-1.	111000	1	1.00000	1	0.7C711	CM827521
1311	CM827411	111001	1	1.0.00000	111002	1	1.00000	1	0.00000	CM827611
1312	CM827421	111003	1	1.0.00000						CM827621
1313	MPC	8275	1	-1.	111000	1	1.00000	1	0.00000	CM827711
1314	CM827511	111001	1	1.0.38268	111002	1	1.00000	1	0.7C711	CM827721
1315	CM827521	111003	1	1.0.92388						CM827811
1316	MPC	8276	1	-1.	111000	1	1.00000	1	0.00000	CM827821
1317	CM827611	111001	1	1.0.70711	111002	1	1.00000	1	0.00000	CM829011
1318	CM827621	111003	1	1.0.70711						CM829021
1319	MPC	8277	1	-1.	111000	1	1.00000	1	0.7C711	CM829111
1320	CM827711	111001	1	1.0.92388	111002	1	1.00000	1	0.7C711	CM829121
1321	CM827721	111003	1	1.0.38268						CM829211
1322	MPC	8278	1	-1.	111000	1	1.00000	1	0.00000	CM829221
1323	CM827811	111001	1	1.0.00000	111002	1	1.00000	1	0.00000	CM829311
1324	CM827821	111003	1	1.0.00000						CM829321
1325	MPC	8290	1	-1.	111100	1	1.00000	1	0.00000	CM829411
1326	CM829011	111101	1	1.0.00000	111102	1	1.00000	1	0.00000	CM829421
1327	CM829021	111103	1	1.0.00000						CM829511
1328	MPC	8291	1	-1.	111100	1	1.00000	1	0.7C711	CM829521
1329	CM829111	111101	1	1.0.92388	111102	1	1.00000	1	0.7C711	CM829611
1330	CM829121	111103	1	1.0.38268						CM829621
1331	MPC	8292	1	-1.	111100	1	1.00000	1	0.00000	CM829711
1332	CM829211	111101	1	1.0.70711	111102	1	1.00000	1	0.00000	CM829721
1333	CM829221	111103	1	1.0.70711						CM829811
1334	MPC	8293	1	-1.	111100	1	1.00000	1	0.7C711	CM829821
1335	CM829311	111101	1	1.0.38268	111102	1	1.00000	1	0.00000	CM829911
1336	CM829321	111103	1	1.0.92388						CM829921
1337	MPC	8294	1	-1.	111100	1	1.00000	1	0.00000	CM829931
1338	CM829411	111101	1	1.0.00000	111102	1	1.00000	1	0.00000	CM829941
1339	CM829421	111103	1	1.0.00000						CM829951
1340	MPC	8295	1	-1.	111100	1	1.00000	1	0.7C711	CM829961
1341	CM829511	111101	1	1.0.38268	111102	1	1.00000	1	0.00000	CM829971
1342	CM829521	111103	1	1.0.92388						CM829981
1343	MPC	8296	1	-1.	111100	1	1.00000	1	0.00000	CM829991
1344	CM829611	111101	1	1.0.70711	111102	1	1.00000	1	0.00000	CM830001
1345	CM829621	111103	1	1.0.70711						CM830011
1346	MPC	8297	1	-1.	111100	1	1.00000	1	0.7C711	CM830021
1347	CM829711	111101	1	1.0.92388	111102	1	1.00000	1	0.00000	CM830031
1348	CM829721	111103	1	1.0.38268						CM830041
1349	MPC	8298	1	-1.	111100	1	1.00000	1	0.00000	CM830051
1350	CM829811	111101	1	1.0.00000	111102	1	1.00000	1	0.00000	CM830061

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
1351-	EM825821	111103	8310	111200	1	1.00000	1	1.00000	EM831011	EM831021
1352-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM831111	EM831121
1353-	EM831011	111201	111203	1	1.00000	111202	1	1.00000	EM831211	EM831221
1354-	EM831021	111201	111203	1	1.00000	111202	1	1.00000	EM831311	EM831321
1355-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM831411	EM831421
1356-	EM831111	111201	111203	1	1.00000	111202	1	1.00000	EM831511	EM831521
1357-	EM831121	111201	111203	1	1.00000	111202	1	1.00000	EM831611	EM831621
1358-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM831711	EM831721
1359-	EM831211	111201	111203	1	1.00000	111202	1	1.00000	EM831811	EM831821
1360-	EM831221	111201	111203	1	1.00000	111202	1	1.00000	EM831911	EM831921
1361-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM832011	EM832021
1362-	EM831311	111201	111203	1	1.00000	111202	1	1.00000	EM832111	EM832121
1363-	EM831321	111201	111203	1	1.00000	111202	1	1.00000	EM832211	EM832221
1364-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM832311	EM832321
1365-	EM831411	111201	111203	1	1.00000	111202	1	1.00000	EM832411	EM832421
1366-	EM831421	111201	111203	1	1.00000	111202	1	1.00000	EM832511	EM832521
1367-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM832611	EM832621
1368-	EM831511	111201	111203	1	1.00000	111202	1	1.00000	EM832711	EM832721
1369-	EM831521	111201	111203	1	1.00000	111202	1	1.00000	EM832811	EM832821
1370-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM832911	EM832921
1371-	EM831611	111201	111203	1	1.00000	111202	1	1.00000	EM833011	EM833021
1372-	EM831621	111201	111203	1	1.00000	111202	1	1.00000	EM833111	EM833121
1373-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM833211	EM833221
1374-	EM831711	111201	111203	1	1.00000	111202	1	1.00000	EM833311	EM833321
1375-	EM831721	111201	111203	1	1.00000	111202	1	1.00000	EM833411	EM833421
1376-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM833511	EM833521
1377-	EM831811	111201	111203	1	1.00000	111202	1	1.00000	EM833611	EM833621
1378-	EM831821	111201	111203	1	1.00000	111202	1	1.00000	EM833711	EM833721
1379-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM833811	EM833821
1380-	EM833011	111201	111203	1	1.00000	111202	1	1.00000	EM833911	EM833921
1381-	EM833021	111201	111203	1	1.00000	111202	1	1.00000	EM834011	EM834021
1382-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM834111	EM834121
1383-	EM833111	111201	111203	1	1.00000	111202	1	1.00000	EM834211	EM834221
1384-	EM833121	111201	111203	1	1.00000	111202	1	1.00000	EM834311	EM834321
1385-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM834411	EM834421
1386-	EM833211	111201	111203	1	1.00000	111202	1	1.00000	EM834511	EM834521
1387-	EM833221	111201	111203	1	1.00000	111202	1	1.00000	EM834611	EM834621
1388-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM834711	EM834721
1389-	EM833311	111201	111203	1	1.00000	111202	1	1.00000	EM834811	EM834821
1390-	EM833321	111201	111203	1	1.00000	111202	1	1.00000	EM834911	EM834921
1391-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM835011	EM835021
1392-	EM833411	111201	111203	1	1.00000	111202	1	1.00000	EM835111	EM835121
1393-	EM833421	111201	111203	1	1.00000	111202	1	1.00000	EM835211	EM835221
1394-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM835311	EM835321
1395-	EM833511	111201	111203	1	1.00000	111202	1	1.00000	EM835411	EM835421
1396-	EM833521	111201	111203	1	1.00000	111202	1	1.00000	EM835511	EM835521
1397-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM835611	EM835621
1398-	EM833611	111201	111203	1	1.00000	111202	1	1.00000	EM835711	EM835721
1399-	EM833621	111201	111203	1	1.00000	111202	1	1.00000	EM835811	EM835821
1400-	MPC	111201	111203	1	1.00000	111202	1	1.00000	EM835911	EM835921

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
1401-	EM833711	111301	111301	1-0.38268	111302	1-0.70711				EM833721
1402-	EM833721	111303	111303	1-0.92388						
1403-	MPC	8338	1	-1.	111300	1	1.00000			EM833811
1404-	EM833811	111301	111301	1-0.70711	111302	1-0.00000				EM833821
1405-	EM833821	111303	111303	1-0.70711						
1406-	MPC	8339	1	-1.	111300	1	1.00000			EM833911
1407-	EM833911	111301	111301	1-0.92388	111302	1-0.70711				EM833921
1408-	EM833921	111303	111303	1-0.38268						
1409-	MPC	8340	1	-1.	111300	1	1.00000			EM834011
1410-	EM834011	111301	111301	1-1.00000	111302	1-1.00000				EM834021
1411-	EM834021	111303	111303	1-1.00000						
1412-	MPC	8370	1	-1.	111400	1	1.00000			EM837011
1413-	EM837011	111401	111401	1-1.00000	111402	1-1.00000				EM837021
1414-	EM837021	111403	111403	1-1.00000						
1415-	MPC	8371	1	-1.	111400	1	1.00000			EM837111
1416-	EM837111	111401	111401	1-0.92388	111402	1-0.70711				EM837121
1417-	EM837121	111403	111403	1-0.38268						
1418-	MPC	8372	1	-1.	111400	1	1.00000			EM837211
1419-	EM837211	111401	111401	1-0.70711	111402	1-1.00000				EM837221
1420-	EM837221	111403	111403	1-0.70711						
1421-	MPC	8373	1	-1.	111400	1	1.00000			EM837311
1422-	EM837311	111401	111401	1-0.38268	111402	1-0.70711				EM837321
1423-	EM837321	111403	111403	1-0.92388						
1424-	MPC	8374	1	-1.	111400	1	1.00000			EM837411
1425-	EM837411	111401	111401	1-1.00000	111402	1-1.00000				EM837421
1426-	EM837421	111403	111403	1-0.00000						
1427-	MPC	8375	1	-1.	111400	1	1.00000			EM837511
1428-	EM837511	111401	111401	1-0.38268	111402	1-0.70711				EM837521
1429-	EM837521	111403	111403	1-0.92388						
1430-	MPC	8376	1	-1.	111400	1	1.00000			EM837611
1431-	EM837611	111401	111401	1-0.70711	111402	1-0.00000				EM837621
1432-	EM837621	111403	111403	1-0.70711						
1433-	MPC	8377	1	-1.	111400	1	1.00000			EM837711
1434-	EM837711	111401	111401	1-0.92388	111402	1-0.70711				EM837721
1435-	EM837721	111403	111403	1-0.38268						
1436-	MPC	8378	1	-1.	111400	1	1.00000			EM837811
1437-	EM837811	111401	111401	1-1.00000	111402	1-1.00000				EM837821
1438-	EM837821	111403	111403	1-1.00000						
1439-	MPC	8390	1	-1.	111500	1	1.00000			EM839011
1440-	EM839011	111501	111501	1-1.00000	111502	1-1.00000				EM839021
1441-	EM839021	111503	111503	1-1.00000						
1442-	MPC	8391	1	-1.	111500	1	1.00000			EM839111
1443-	EM839111	111501	111501	1-0.92388	111502	1-0.70711				EM839121
1444-	EM839121	111503	111503	1-0.38268						
1445-	MPC	8392	1	-1.	111500	1	1.00000			EM839211
1446-	EM839211	111501	111501	1-0.70711	111502	1-1.00000				EM839221
1447-	EM839221	111503	111503	1-0.70711						
1448-	MPC	8393	1	-1.	111500	1	1.00000			EM839311
1449-	EM839311	111501	111501	1-0.38268	111502	1-0.70711				EM839321
1450-	EM839321	111503	111503	1-0.92388						

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CARD	1	2	3	4	5	6	7	8	9	10
1451-	MP	8394	1	-1.	111500	1	1.00000	1	1.00000	EM839411
1452-	EM839421		111501	1	1.00000	111502	1	1.00000	1	EM839421
1453-	MP	8395	1	-1.	111500	1	1.00000	1	1.00000	EM839511
1454-	EM839521		111501	1	1.00000	111502	1	1.00000	1	EM839521
1455-	MP	8396	1	-1.	111500	1	1.00000	1	1.00000	EM839611
1456-	EM839621		111501	1	1.00000	111502	1	1.00000	1	EM839621
1457-	MP	8397	1	-1.	111500	1	1.00000	1	1.00000	EM839711
1458-	EM839721		111501	1	1.00000	111502	1	1.00000	1	EM839721
1459-	MP	8398	1	-1.	111500	1	1.00000	1	1.00000	EM839811
1460-	EM839821		111501	1	1.00000	111502	1	1.00000	1	EM839821
1461-	MP	8410	1	-1.	111600	1	1.00000	1	1.00000	EM841011
1462-	EM841021		111601	1	1.00000	111602	1	1.00000	1	EM841021
1463-	MP	8411	1	-1.	111600	1	1.00000	1	1.00000	EM841111
1464-	EM841121		111601	1	1.00000	111602	1	1.00000	1	EM841121
1465-	MP	8412	1	-1.	111600	1	1.00000	1	1.00000	EM841211
1466-	EM841221		111601	1	1.00000	111602	1	1.00000	1	EM841221
1467-	MP	8413	1	-1.	111600	1	1.00000	1	1.00000	EM841311
1468-	EM841321		111601	1	1.00000	111602	1	1.00000	1	EM841321
1469-	MP	8414	1	-1.	111600	1	1.00000	1	1.00000	EM841411
1470-	EM841421		111601	1	1.00000	111602	1	1.00000	1	EM841421
1471-	MP	8415	1	-1.	111600	1	1.00000	1	1.00000	EM841511
1472-	EM841521		111601	1	1.00000	111602	1	1.00000	1	EM841521
1473-	MP	8416	1	-1.	111600	1	1.00000	1	1.00000	EM841611
1474-	EM841621		111601	1	1.00000	111602	1	1.00000	1	EM841621
1475-	MP	8417	1	-1.	111600	1	1.00000	1	1.00000	EM841711
1476-	EM841721		111601	1	1.00000	111602	1	1.00000	1	EM841721
1477-	MP	8418	1	-1.	111600	1	1.00000	1	1.00000	EM841811
1478-	EM841821		111601	1	1.00000	111602	1	1.00000	1	EM841821
1479-	MP	8419	1	-1.	111600	1	1.00000	1	1.00000	EM841911
1480-	EM841921		111601	1	1.00000	111602	1	1.00000	1	EM841921
1481-	MP	8420	1	-1.	111600	1	1.00000	1	1.00000	EM842011
1482-	EM842021		111601	1	1.00000	111602	1	1.00000	1	EM842021
1483-	MP	8421	1	-1.	111600	1	1.00000	1	1.00000	EM842111
1484-	EM842121		111601	1	1.00000	111602	1	1.00000	1	EM842121
1485-	MP	8422	1	-1.	111600	1	1.00000	1	1.00000	EM842211
1486-	EM842221		111601	1	1.00000	111602	1	1.00000	1	EM842221
1487-	MP	8423	1	-1.	111600	1	1.00000	1	1.00000	EM842311
1488-	EM842321		111601	1	1.00000	111602	1	1.00000	1	EM842321
1489-	MP	8424	1	-1.	111600	1	1.00000	1	1.00000	EM842411
1490-	EM842421		111601	1	1.00000	111602	1	1.00000	1	EM842421
1491-	MP	8425	1	-1.	111600	1	1.00000	1	1.00000	EM842511
1492-	EM842521		111601	1	1.00000	111602	1	1.00000	1	EM842521
1493-	MP	8426	1	-1.	111600	1	1.00000	1	1.00000	EM842611
1494-	EM842621		111601	1	1.00000	111602	1	1.00000	1	EM842621
1495-	MP	8427	1	-1.	111600	1	1.00000	1	1.00000	EM842711
1496-	EM842721		111601	1	1.00000	111602	1	1.00000	1	EM842721
1497-	MP	8428	1	-1.	111600	1	1.00000	1	1.00000	EM842811
1498-	EM842821		111601	1	1.00000	111602	1	1.00000	1	EM842821
1499-	MP	8429	1	-1.	111600	1	1.00000	1	1.00000	EM842911
1500-	EM842921		111601	1	1.00000	111602	1	1.00000	1	EM842921

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CARD	1	2	3	4	5	6	7	8	9	10
C1JNT			111703		1-0.70711					
1501-	EM843321		8433	1	-1.	111700	1	1.00000		EM843311
1502-	MPC									
1503-	EM843311		111701		1 0.8268	111702		1-0.70711		EM843321
1504-	EM843321		111703		1-0.92338					
1505-	MPC		8434	1	-1.	111700	1	1.00000		EM843411
1506-	EM843411		111701		1 0.00000	111702		1-1.00000		EM843421
1507-	EM843421		111703		1-0.00000					
1508-	MPC		8435	1	-1.	111700	1	1.00000		EM843511
1509-	EM843511		111701		1-0.38268	111702		1-0.70711		EM843521
1510-	EM843521		111703		1 0.92338					
1511-	MPC		8436	1	-1.	111700	1	1.00000		EM843611
1512-	EM843611		111701		1-0.70711	111702		1-0.00000		EM843621
1513-	EM843621		111703		1 0.70711					
1514-	MPC		8437	1	-1.	111700	1	1.00000		EM843711
1515-	EM843711		111701		1-0.92338	111702		1 0.70711		EM843721
1516-	EM843721		111703		1-0.38268					
1517-	MPC		8438	1	-1.	111700	1	1.00000		EM843811
1518-	EM843811		111701		1-1.00000	111702		1 1.00000		EM843821
1519-	EM843821		111703		1-1.00000					
1520-	OMI T1	0	1001061	1001062	1001063					
1521-	OMI T1	0	1001074	1001075	1001076	1001087	1001088	1001089		
1522-	OMI T1	0	1001100	1001101	1001102	1001113	1001114	1001115		
1523-	OMI T1	0	1001126	1001127	1001128	1001139	1001140	1001141		
1524-	OMI T1	0	1001152	1001153	1001165					
1525-	OMI T1	0	1002219	1002220	1002239	1002240				
1526-	OMI T1	0	1002259	1002260	1002279	1002280	1002300	1002301		
1527-	OMI T1	0	1002319	1002320	1002342	1002343	1002379	1002380		
1528-	OMI T1	0	1002399	1002400	1002419					
1529-	OMI T1	0	2001061	2001062	2001063					
1530-	OMI T1	0	2001074	2001075	2001076	2001087	2001088	2001089		
1531-	OMI T1	0	2001100	2001101	2001102	2001113	2001114	2001115		
1532-	OMI T1	0	2001126	2001127	2001128	2001139	2001140	2001141		
1533-	OMI T1	0	2001152	2001153	2001165					
1534-	OMI T1	0	2002219	2002220	2002239	2002240				
1535-	OMI T1	0	2002259	2002260	2002279	2002280	2002300	2002301		
1536-	OMI T1	0	2002319	2002320	2002342	2002343	2002379	2002380		
1537-	OMI T1	0	2002399	2002400	2002419					
1538-	OMI T1	0	3001061	3001062	3001063					
1539-	OMI T1	0	3001074	3001075	3001076	3001087	3001088	3001089		
1540-	OMI T1	0	3001100	3001101	3001102	3001113	3001114	3001115		
1541-	OMI T1	0	3001126	3001127	3001128	3001139	3001140	3001141		
1542-	OMI T1	0	3001152	3001153	3001165					
1543-	OMI T1	0	3002219	3002220	3002239	3002240				
1544-	OMI T1	0	3002259	3002260	3002279	3002280	3002300	3002301		
1545-	OMI T1	0	3002319	3002320	3002342	3002343	3002379	3002380		
1546-	OMI T1	0	3002399	3002400	3002419					
1547-	OMI T1	0	4001061	4001062	4001063					
1548-	OMI T1	0	4001074	4001075	4001076	4001087	4001088	4001089		
1549-	OMI T1	0	4001100	4001101	4001102	4001113	4001114	4001115		
1550-	OMI T1	0	4001126	4001127	4001128	4001139	4001140	4001141		

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CARD	1	2	3	4	5	6	7	8	9	10
1551-	OMIT	0	4001152	4001153	4001165					
1552-	OMIT	0	4002219	4002220	4002239	4002240				
1553-	OMIT	0	4002259	4002260	4002279	4002280	4002300	4002301		
1554-	OMIT	0	4002319	4002320	4002342	4002343	4002379	4002380		
1555-	OMIT	0	4002399	4002400	4002419					
1556-	PARAM	A999	2.0	.0						
1557-	RINGFL	1009	2.4		23.0	1010	4.45		23.0	
1558-	RINGFL	1011	6.65		23.0	1012	9.0		23.0	
1559-	RINGFL	1022	5.0		31.93	1023	7.75		31.9	
1560-	RINGFL	1024	10.75		31.93	1025	14.2		31.9	
1561-	RINGFL	1035	5.0		40.38	1036	9.2		40.3	
1562-	RINGFL	1037	12.5		40.38	1038	16.2		40.3	
1563-	RINGFL	1048	5.0		43.38	1049	10.0		48.3	
1564-	RINGFL	1050	13.7		48.38	1051	18.0		48.3	
1565-	RINGFL	1061	5.0		55.28	1062	10.0		56.2	
1566-	RINGFL	1063	15.0		55.28	1064	19.875		56.2	
1567-	RINGFL	1074	5.0		65.78	1075	10.0		65.7	
1568-	RINGFL	1076	15.0		65.78	1077	19.875		65.7	
1569-	RINGFL	1087	5.0		71.78	1088	10.0		71.7	
1570-	RINGFL	1089	15.0		71.78	1090	15.875		71.7	
1571-	RINGFL	1100	5.0		77.23	1101	10.0		77.2	
1572-	RINGFL	1102	15.0		77.23	1103	19.875		77.2	
1573-	RINGFL	1113	5.0		83.78	1114	10.0		83.7	
1574-	RINGFL	1115	15.0		83.78	1116	19.8		83.7	
1575-	RINGFL	1126	5.0		87.93	1127	10.0		87.9	
1576-	RINGFL	1128	15.0		87.93	1129	18.54		87.9	
1577-	RINGFL	1139	5.0		91.28	1140	10.0		91.2	
1578-	RINGFL	1141	13.6		91.28	1142	16.28		91.2	
1579-	RINGFL	1152	5.0		94.53	1153	9.0		94.5	
1580-	RINGFL	1154	12.29		94.53	1155	5.0		96.0	
1581-	RINGFL	1166	9.274		95.033	1178	1.785		97.9	
1582-	RINGFL	1179	5.266		97.386					
1583-	RINGFL	2179	6.4		129.35	2180	12.61		128.35	
1584-	RINGFL	2101	19.8		123.35	2199	6.4		139.06	
1585-	RINGFL	2200	12.61		131.06	2201	19.8		139.06	
1586-	RINGFL	2219	6.4		143.756	2220	12.61		146.75	
1587-	RINGFL	2221	19.8		143.756	2239	6.4		168.75	
1588-	RINGFL	2240	12.61		168.75	2241	19.8		168.75	
1589-	RINGFL	2259	6.4		198.75	2260	12.61		188.75	
1590-	RINGFL	2261	19.8		198.75	2279	6.4		209.13	
1591-	RINGFL	2280	12.61		209.13	2281	19.8		209.13	
1592-	RINGFL	2300	6.4		229.156	2301	12.61		229.15	
1593-	RINGFL	2302	19.8		229.156	2319	6.4		237.3	
1594-	RINGFL	2320	12.61		237.3	2321	19.8		237.3	
1595-	RINGFL	2342	6.4		245.75362343	12.61			245.75	
1596-	RINGFL	2344	19.8		245.75362379	6.4			259.12	
1597-	RINGFL	2380	12.61		258.125	2381	19.8		258.12	
1598-	RINGFL	2399	6.4		250.92	2400	12.61		266.92	
1599-	RINGFL	2401	17.91		260.92	2419	6.4		266.92	
1600-	RINGFL	2420	12.61		260.92	2439	6.4		266.75	

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OF POOR QUALITY

Volume II

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
1601-	SPC1	1	0	1001009	1001010	1001011	1001012	1001022	1001023	
1602-	SPC1	1	0	1001024	1001025	1001035	1001036	1001037	1001038	
1603-	SPC1	1	0	1001048	1001049	1001050	1001051	1002179	1002180	
1604-	SPC1	1	0	1002181	1002199	1002200	1002201			
1605-	SPC1	1	0	2001009	2001010	2001011	2001012	2001022	2001023	
1606-	SPC1	1	0	2001024	2001025	2001035	2001036	2001037	2001038	
1607-	SPC1	1	0	2001048	2001049	2001050	2001051	2002179	2002180	
1608-	SPC1	1	0	2002181	2002199	2002200	2002201			
1609-	SPC1	1	0	3001009	3001010	3001011	3001012	3001022	3001023	
1610-	SPC1	1	0	3001024	3001025	3001035	3001036	3001037	3001038	
1611-	SPC1	1	0	3001048	3001049	3001050	3001051	3002179	3002180	
1612-	SPC1	1	0	3002181	3002199	3002200	3002201			
1613-	SPC1	1	0	4001009	4001010	4001011	4001012	4001022	4001023	
1614-	SPC1	1	0	4001024	4001025	4001035	4001036	4001037	4001038	
1615-	SPC1	1	0	4001048	4001049	4001050	4001051	4002179	4002180	
1616-	SPC1	1	0	4002181	4002199	4002200	4002201			
1617-	SPC1	1	3	8329						
1618-	SPC1	1	23	8209						
1619-	SPC1	1	123	8299						
1620-	SPC1	1	23456	5013	9140	8328	8341	8359	8360	
1621-	SPC1	1	23456	5026	THRU	5021				
1622-	SPC1	1	23456	5039	THRU	5034				
1623-	SPC1	1	23456	5052	THRU	5047				
1624-	SPC1	1	23456	5065	THRU	5060				
1625-	SPC1	1	23456	5078	THRU	5073				
1626-	SPC1	1	23456	5091	THRU	5086				
1627-	SPC1	1	23456	5104	THRU	5099				
1628-	SPC1	1	23456	5117	THRU	5112				
1629-	SPC1	1	23456	5130	THRU	5126				
1630-	SPC1	1	23456	5143	THRU	5138				
1631-	SPC1	1	23456	5156	THRU	5151				
1632-	SPC1	1	23456	5169	THRU	5164				
1633-	SPC1	1	23456	5182	THRU	5177				
1634-	SPC1	1	23456	5195	THRU	5190				
1635-	SPC1	1	23456	6070	THRU	6079				
1636-	SPC1	1	23456	8110	THRU	8119				
1637-	SPC1	1	23456	8130	THRU	8139				
1638-	SPC1	1	23456	8150	THRU	8159				
1639-	SPC1	1	23456	8170	THRU	8178				
1640-	SPC1	1	23456	8190	THRU	8198				
1641-	SPC1	1	23456	8210	THRU	8218				
1642-	SPC1	1	23456	8230	THRU	8238				
1643-	SPC1	1	23456	8250	THRU	8258				
1644-	SPC1	1	23456	8270	THRU	8278				
1645-	SPC1	1	23456	8290	THRU	8298				
1646-	SPC1	1	23456	8310	THRU	8318				
1647-	SPC1	1	23456	8330	THRU	8340				
1648-	SPC1	1	23456	8370	THRU	8378				
1649-	SPC1	1	23456	8390	THRU	8398				
1650-	SPC1	1	23456	8410	THRU	8418				

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SORTED 8 J L K DATA ECHO												
CASE	1	2	3	4	5	6	7	8	9	10		
CJUNT	SPC1		23456	8430	THRU	8438						
1651-	SPC1	1	23456	100200	THRU	100203						
1652-	SPC1	1	23456	100300	THRU	100303						
1653-	SPC1	1	23456	100400	THRU	100403						
1654-	SPC1	1	23456	100500	THRU	100503						
1655-	SPC1	1	23456	100600	THRU	100603						
1656-	SPC1	1	23456	100700	THRU	100703						
1657-	SPC1	1	23456	100800	THRU	100803						
1658-	SPC1	1	23456	100900	THRU	100903						
1659-	SPC1	1	23456	101000	THRU	101003						
1660-	SPC1	1	23456	101100	THRU	101103						
1661-	SPC1	1	23456	101200	THRU	101203						
1662-	SPC1	1	23456	101300	THRU	101303						
1663-	SPC1	1	23456	101400	THRU	101403						
1664-	SPC1	1	23456	101500	THRU	101503						
1665-	SPC1	1	23456	101600	THRU	101603						
1666-	SPC1	1	23456	101700	THRU	101703						
1667-	SPC1	1	23456	101800	THRU	101803						
1668-	SPC1	1	23456	101900	THRU	101903						
1669-	SPC1	1	23456	102000	THRU	102003						
1670-	SPC1	1	23456	102100	THRU	102103						
1671-	SPC1	1	23456	102200	THRU	102203						
1672-	SPC1	1	23456	102300	THRU	102303						
1673-	SPC1	1	23456	102400	THRU	102403						
1674-	SPC1	1	23456	102500	THRU	102503						
1675-	SPC1	1	23456	102600	THRU	102603						
1676-	SPC1	1	23456	102700	THRU	102703						
1677-	SPC1	1	23456	102800	THRU	102803						
1678-	SPC1	1	23456	102900	THRU	102903						
1679-	SPC1	1	23456	103000	THRU	103003						
1680-	SPC1	1	23456	103100	THRU	103103						
1681-	SPC1	1	23456	103200	THRU	103203						
1682-	SPC1	1	23456	103300	THRU	103303						
1683-	SPC1	1	23456	103400	THRU	103403						
1684-	SPC1	1	23456	103500	THRU	103503						
1685-	SPC1	1	23456	103600	THRU	103603						
1686-	SPC1	1	23456	103700	THRU	103703						
1687-	SPC1	1	23456	103800	THRU	103803						
1688-	SPC1	1	23456	103900	THRU	103903						
1689-	SPC1	1	23456	104000	THRU	104003						
1690-	SPC1	1	23456	104100	THRU	104103						
1691-	SPC1	1	23456	104200	THRU	104203						
1692-	SPC1	1	23456	104300	THRU	104303						
1693-	SPC1	1	23456	104400	THRU	104403						
1694-	SPC1	1	23456	104500	THRU	104503						
1695-	SPC1	1	23456	104600	THRU	104603						
1696-	SPC1	1	23456	104700	THRU	104703						
1697-	SPC1	1	23456	104800	THRU	104803						
1698-	SPC1	1	23456	104900	THRU	104903						
1699-	SPC1	1	23456	105000	THRU	105003						
1700-	SPC1	1	23456	105100	THRU	105103						
1701-	SPC1	1	23456	105200	THRU	105203						
1702-	SPC1	1	23456	105300	THRU	105303						
1703-	SPC1	1	23456	105400	THRU	105403						
1704-	SPC1	1	23456	105500	THRU	105503						
1705-	SPC1	1	23456	105600	THRU	105603						
1706-	SPC1	1	23456	105700	THRU	105703						
1707-	SPC1	1	23456	105800	THRU	105803						
1708-	SPC1	1	23456	105900	THRU	105903						
1709-	SPC1	1	23456	106000	THRU	106003						
1710-	SPC1	1	23456	106100	THRU	106103						
1711-	SPC1	1	23456	106200	THRU	106203						
1712-	SPC1	1	23456	106300	THRU	106303						
1713-	SPC1	1	23456	106400	THRU	106403						
1714-	SPC1	1	23456	106500	THRU	106503						
1715-	SPC1	1	23456	106600	THRU	106603						
1716-	SPC1	1	23456	106700	THRU	106703						
1717-	SPC1	1	23456	106800	THRU	106803						
1718-	SPC1	1	23456	106900	THRU	106903						
1719-	SPC1	1	23456	107000	THRU	107003						
1720-	SPC1	1	23456	107100	THRU	107103						
1721-	SPC1	1	23456	107200	THRU	107203						
1722-	SPC1	1	23456	107300	THRU	107303						
1723-	SPC1	1	23456	107400	THRU	107403						
1724-	SPC1	1	23456	107500	THRU	107503						
1725-	SPC1	1	23456	107600	THRU	107603						
1726-	SPC1	1	23456	107700	THRU	107703						
1727-	SPC1	1	23456	107800	THRU	107803						
1728-	SPC1	1	23456	107900	THRU	107903						
1729-	SPC1	1	23456	108000	THRU	108003						
1730-	SPC1	1	23456	108100	THRU	108103						
1731-	SPC1	1	23456	108200	THRU	108203						
1732-	SPC1	1	23456	108300	THRU	108303						
1733-	SPC1	1	23456	108400	THRU	108403						
1734-	SPC1	1	23456	108500	THRU	108503						
1735-	SPC1	1	23456	108600	THRU	108603						
1736-	SPC1	1	23456	108700	THRU	108703						
1737-	SPC1	1	23456	108800	THRU	108803						
1738-	SPC1	1	23456	108900	THRU	108903						
1739-	SPC1	1	23456	109000	THRU	109003						
1740-	SPC1	1	23456	109100	THRU	109103						
1741-	SPC1	1	23456	109200	THRU	109203						
1742-	SPC1	1	23456	109300	THRU	109303						
1743-	SPC1	1	23456	109400	THRU	109403						
1744-	SPC1	1	23456	109500	THRU	109503						
1745-	SPC1	1	23456	109600	THRU	109603						
1746-	SPC1	1	23456	109700	THRU	109703						
1747-	SPC1	1	23456	109800	THRU	109803						
1748-	SPC1	1	23456	109900	THRU	109903						
1749-	SPC1	1	23456	110000	THRU	110003						
1750-	SPC1	1	23456	110100	THRU	110103						
1751-	SPC1	1	23456	110200	THRU	110203						
1752-	SPC1	1	23456	110300	THRU	110303						
1753-	SPC1	1	23456	110400	THRU	110403						
1754-	SPC1	1	23456	110500	THRU	110503						
1755-	SPC1	1	23456	110600	THRU	110603						
1756-	SPC1	1	23456	110700	THRU	110703						
1757-	SPC1	1	23456	110800	THRU	110803						
1758-	SPC1	1	23456	110900	THRU	110903						
1759-	SPC1	1	23456	111000	THRU	111003						
1760-	SPC1	1	23456	111100	THRU	111103						
1761-	SPC1	1	23456	111200	THRU	111203						
1762-	SPC1	1	23456	111300	THRU	111303						
1763-	SPC1	1	23456	111400	THRU	111403						
1764-	SPC1	1	23456	111500	THRU	111503						
1765-	SPC1	1	23456	111600	THRU	111603						
1766-	SPC1	1	23456	111700	THRU	111703						
1767-	SPC1	1	23456	111800	THRU	111803						
1768-	SPC1	1	23456	111900	THRU	111903						
1769-	SPC1	1	23456	112000	THRU	112003						
1770-	SPC1	1	23456	112100	THRU	112103						
1771-	SPC1	1	23456	112200	THRU	112203						
1772-	SPC1	1	23456	112300	THRU	112303						
1773-	SPC1	1	23456	112400	THRU	112403						
1774-	SPC1	1	23456	112500	THRU	112503						
1775-	SPC1	1	23456	112600	THRU	112603						
1776-	SPC1	1	23456	112700	THRU	112703						
1777-	SPC1	1	23456	112800	THRU	112803						
1778-	SPC1	1	23456	112900	THRU	112903						
1779-	SPC1	1	23456	113000	THRU	113003						
1780-	SPC1	1	23456	113100	THRU	113103						
1												

NASTRAN SOURCE PROGRAM COMPI LATION

UNAP-UNAP INSTRUCTION

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1 BEGIN-----N3.7 DIRECT COMPLEX EIGENVALUE ANALYSIS - SERIES MIL $
2 FILE KGGX=TAPE/ KGG=TAPE/ GOD=SAVE/ GMD=SAVE $
3 G-J GEOM1.GEOM2./GPL.EQEXIN.GPDT.CSTP.BGPD.T.SIL/V.N.OLUSEI/ C.N.
123/V.N.NOGPDT $
4 SAVE _USET.NOGPDT $
5 PUJGE _USET.GM.GD.KAA.DAA.MAA.KAAA.KFS.EST.ECT.PLTSETX.PLTPAR.GPSETS.
E-SETS.NOGPDT $
6 CLKPNT _GPL.EJEXIN.GPDT.CSTM.BGPD.T.SIL.USET.GM.GD.KAA.EAA.MAA.KAAA.EST.
ECT.PLTSETX.PLTPAR.GPSETS.ELSETS $
7 C-ND _JL5.NOGPDT $
8 G-2 GEOM2.EQEXIN/ECT $
9 CLKPNT ECT $
10 P-TSET _CDB.EQEXIN.ECT/PLTSETX.PLTSETX.PLTPAR.GPSETS.ELSETS/V.N.NSIL/ V.N.
JUMPLT $
11 SAVE _NSUL.JUMPLT $
12 P-TMSG P-TSETX// $
13 BLVAL //V.N.PLTFLG/C.N.1/V.N.PFILE/C.N.0 $
14 SAVE _P-TFLG.PFILE $
15 C-ND P-T.JUMPLT $
16 P-LT _P-TPAR.GPSETS.ELSETS.CASECC.BGPD.T.EQEXIN.SIL./PLTXX1/ V.N.
NSIL/V.N.OLUSEI/V.N.JUMPLT/V.N.PLTFLG/V.N.PFILE $
17 SAVE _PFILE $
18 P-TMSG PLTXX1// $
19 _JL5 _P1 $
20 CLKPNT P-TPAR.GPSETS.ELSETS $
21 G-3 GEOM3.EQEXIN.GEOM2./GPTT/C.N.123/V.N.NOGRAV/C.N.123 $
22 CLKPNT GPTT $

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JULY 3, 1974 NASTRAN 2/1/73

NASTRAN SOURCE PROGRAM COMPILATION

DAP-DAP INSTRUCTION
40.

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23  IAL.....ECPT,GPST,SIL,GPST,CSIM/EST,GEI,ECPT,GPST/V,N,LUSET/CoN,
    123/V,N,NO$IMP=-1/CoN,0/V,N,NO$ENL=-1/V,N,GENEL $

24  SAVE.....NO$IMP,NO$ENL,GENEL $

25  PURGE.....K4GG,GPST,GPST,MGG,BGG,K4NN,K4FF,K4AA,MNN,MFF,MAA,BNN,BFF,BAA,
    KGGX/NO$IMP / GPST/GENEL $

26  CHKPNT...EST,ECPT,GPCT,GEI,K4GG,GPST,MGG,BGG,KGGX,GPST, K4NN,K4FF,
    K4AA,MNN,MFF,MAA,BNN,BFF,BAA $

27  COND.....LUL1,NO$IMP $

28  S4A1.....CSTM,MPT,ECPT,GPCT,DIIT/KGGX,K4GG,GPST/V,N,NO$ENL/V,N,NCK4GG $

29  SAVE.....NCK4GG $

30  PURGE.....K4NN,K4FF,K4AA/NCK4GG $

31  CHKPNT...KGGX,GPST,K4GG,K4NN,K4FF,K4AA $

32  S4A2.....CSTM,MPT,ECPT,GPCT,DIIT/MGG,BGG/V,Y,WTMASS=1.0/V,N,NOMGG/ V,N,
    NDBG=-1/V,Y,COUPMASS/V,Y,CBAR/V,Y,CPRD/V,Y,CPUDAD1/ V,Y,
    CPUDAD2/V,Y,CPTRIA1/V,Y,CPTRIA2/V,Y,CPTUBE/V,Y,CPQDHLT/ V,Y,
    CPTRPL1/V,Y,CPTRBSC $

33  SAVE.....NOMGG,NDBG $

34  PURGE.....BIN,BFF,BAA/NDBG/MNN,MFF,MAA/NCPGG $

35  CHKPNT...MGG,MNN,MFF,MAA,BGG,BNN,BFF,JAA $

36  COND.....JUL1,GRDPNT $

37  COND.....ERROR3,NOMGG $

38  S4A3.....JSPDT,CSTM,EQE,XIN,MGG,DGPMG/V,Y,GRDENT=-1/V,Y,WTMASS $

39  JSP.....DGPMG,...../V,N,CARDNO $

40  SAVE.....CARDNO $

41  LABEL.....JUL1 $

42  LJJIV.....KGGX,KGG/NO$ENL $

43  CHKPNT...KGG $

44  COND.....JUL11,NO$ENL $

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V A S T R A N S O U R C E P R O G R A M C C M P I L A T I O N

34AP-D4AP INSTRUCTION

VJ.

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45 SMA3 GE1,KGGX/KGG/V,N,LUSET/V,N,NOGEN/V,N,NOGIMP $
46 CHKPNT KGG $
47 LABEL -BL11 $
48 PAYAM //C,N,MPY/V,N,NSKIP/C,N,0/C,N,0 $
49 GP4 CASECC,GEOM4,EQE,XIN,SIL,GPDT/RG,,USET,,/V,N,LUSET/V,N,MPCF1/ V,
N,MPCF2/V,N,SINGLE/V,N,OMIT/V,N,REACT/V,N,NSKIP/V,N,REPEAT/
V,N,NOSET=-1/V,N,NOL/V,N,NOA=-1 $
50 SAVE MPCF1,MPCF2,SINGLE,OMIT,NSKIP,NOSET,REACT,REPEAT,NOL,NOA $
50 MAT GPR GPL,USET,SIL,MGG//C,N,G
50 MAT GPR GPL,USET,SIL,KGG//C,N,G
51 PURGE G4,GND/MPCF1/GU,GDD/OMIT/KFS,OPC/SINGLE $
52 EJJIV <JG,KNN/MPCF1/MGG,MNN/MPCF1/ BGG,BNN/MPCF1/K4GG,K4NN/MPCF1 $
53 CHKPNT GM,GND,RG,GD,GDD,KFS,OPC,USET,KNA,MNA,BNA,K4NN $
54 GND L3L4,GENEL $
55 GND -3L4,NOGIMP $
56 GND GP,GD,ST,USET,SIL/OGPST $
57 JIP JGPST,....//V,N,CAHND $
58 JAVE CAROND $
59 LABEL L3L4 $
60 GND -3-2,MPCF2 $
61 MCL1 USET,IG/GM $
62 CHKPNT G4 $
63 ICE2 USET,GM,KGG,MGG,BGG,K4GG/KNN,MNA,BNA,K4NN $
64 CHKPNT <NN,MNN,BNN,K4NN $
65 LABEL -3L2 $
66 EJJIV <VN,KFF/SINGLE/MNN,MFF/SINGLE/BNN,BFF/SINGLE/K4NN,K4FF/SINGLE $

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NASTRAN 2/1/73

JULY 3, 1974

MAP-ORMAP INSTRUCTION

43.

67. CHKPNT CFF,MFF,BFF,K4FF \$

68. CJND LBL3,SINGLE \$

69. SCE1 USET,KNN,MNN,BNN,K4NN/KFF,KFS,MFF,BFF,K4FF \$

70. CHKPNT KFS,KFF,MFF,BFF,K4FF \$

71. LABEL LBL3 \$

72. EJJIV KFF,KAA/DMIT/ MFF,MAA/DMIT/BFF,BAA/DMIT/K4FF,K4AA/DMIT \$

73. CHKPNT KAA,MAA,BAA,K4AA \$

74. MATGPR GPL,USET,SIL,MFF//C,N,F

75. MATGPR G2,USET,SIL,KFF//C,N,F

76. LBL3 BL5,DMIT \$

77. CHKPNT G3,KAA \$

78. CJND LBLM,NOMGG \$

79. S42 USET,G0,MFF/MAA \$

80. CHKPNT MAA \$

81. LBL3 BL5,DMIT \$

82. CJND BL3,NOMGG \$

83. S42 USET,G0,BFF/DAA \$

84. CHKPNT DAA \$

85. LABEL BL5 \$

86. CJND LBL5,NOM4GG \$

87. S42 USET,G0,K4FF/K4AA \$

88. CHKPNT K4AA \$

89. LABEL LBL5 \$

90. DYN DYNAMICS,GPL,SIL,USET/GPLD,SILD,USETD,TFFQDL,.....EED,EGDYN/V, N,NOPSUL/V,N,NOFRL/ N,USET/V,N,L,USE TD/V,N,NUTFL/V,N,NCDLT/V,N,NOPSUL/V,N,NOFRL/

TEACH SOURCE PROGRAM ACCUMULATION

...U4A2-U4A6 - INSTRUCTION

ה

V. N. NOVI ET/V. N. NOBRL/V. N. NOED/C. N. 123/V. N. NOJE 3

NO SAVE USE TO NOVE \$

1. 1 JUL 1963 0630 GDD/NOUVE/GEN.GMD/NOUVE 5

USE ID, FEED, EQD YN, IF POOL, GOD, GMD, SILD, GPLD, S

03 032AM //C:N.ADD/V:N.NE VER/C:N.1/C:N.0 \$

0A 000AM //C.N.MPY/V.N.REPEATE/C.N.1/C.N.-1.S

095 0446
MPTPOOL.RGPD.T.EQEXIN.CSTM/BDPQL/V.N.NOKBFL/V.N.NOBABFL/V.N.
WACT 3

96 SAVE MEACT,NOKUFL,NDAOFL \$

07 243 AM 11C.N.AND/V.N.NGFL/V.N.NDABFL/V.N.NOKBFL S

24 2443F K4E /NDKHEFL/ADFL/NOABFL-S.

6th JAN 63 11 13 AM '63

100 41RX IN. J3POUL.EGDYN./ABFL.KBFL./V.N.LUSETD/V.N.NOABFL/V.N.NCKBFL/C.
N.0 \$

101 JAVL VJADFL.NOKBFL \$

1.1 GPL, WSET, SIL, A3L/C, N.P.

111 141 201 261 321 381 441 501 561 621 681 741 801 861 921 981 1041 1101 1161 1221 1281 1341 1401 1461 1521 1581 1641 1701 1761 1821 1881 1941 2001 2061 2121 2181 2241 2301 2361 2421 2481 2541 2601 2661 2721 2781 2841 2901 2961 3021 3081 3141 3201 3261 3321 3381 3441 3501 3561 3621 3681 3741 3801 3861 3921 3981 4041 4101 4161 4221 4281 4341 4401 4461 4521 4581 4641 4701 4761 4821 4881 4941 5001 5061 5121 5181 5241 5301 5361 5421 5481 5541 5601 5661 5721 5781 5841 5901 5961 6021 6081 6141 6201 6261 6321 6381 6441 6501 6561 6621 6681 6741 6801 6861 6921 6981 7041 7101 7161 7221 7281 7341 7401 7461 7521 7581 7641 7701 7761 7821 7881 7941 8001 8061 8121 8181 8241 8301 8361 8421 8481 8541 8601 8661 8721 8781 8841 8901 8961 9021 9081 9141 9201 9261 9321 9381 9441 9501 9561 9621 9681 9741 9801 9861 9921 9981 10041 10101 10161 10221 10281 10341 10401 10461 10521 10581 10641 10701 10761 10821 10881 10941 11001 11061 11121 11181 11241 11301 11361 11421 11481 11541 11601 11661 11721 11781 11841 11901 11961 12021 12081 12141 12201 12261 12321 12381 12441 12501 12561 12621 12681 12741 12801 12861 12921 12981 13041 13101 13161 13221 13281 13341 13401 13461 13521 13581 13641 13701 13761 13821 13881 13941 14001 14061 14121 14181 14241 14301 14361 14421 14481 14541 14601 14661 14721 14781 14841 14901 14961 15021 15081 15141 15201 15261 15321 15381 15441 15501 15561 15621 15681 15741 15801 15861 15921 15981 16041 16101 16161 16221 16281 16341 16401 16461 16521 16581 16641 16701 16761 16821 16881 16941 17001 17061 17121 17181 17241 17301 17361 17421 17481 17541 17601 17661 17721 17781 17841 17901 17961 18021 18081 18141 18201 18261 18321 18381 18441 18501 18561 18621 18681 18741 18801 18861 18921 18981 19041 19101 19161 19221 19281 19341 19401 19461 19521 19581 19641 19701 19761 19821 19881 19941 20001 20061 20121 20181 20241 20301 20361 20421 20481 20541 20601 20661 20721 20781 20841 20901 20961 21021 21081 21141 21201 21261 21321 21381 21441 21501 21561 21621 21681 21741 21801 21861 21921 21981 22041 22101 22161 22221 22281 22341 22401 22461 22521 22581 22641 22701 22761 22821 22881 22941 23001 23061 23121 23181 23241 23301 23361 23421 23481 23541 23601 23661 23721 23781 23841 23901 23961 24021 24081 24141 24201 24261 24321 24381 24441 24501 24561 24621 24681 24741 24801 24861 24921 24981 25041 25101 25161 25221 25281 25341 25401 25461 25521 25581 25641 25701 25761 25821 25881 25941 26001 26061 26121 26181 26241 26301 26361 26421 26481 26541 26601 26661 26721 26781 26841 26901 26961 27021 27081 27141 27201 27261 27321 27381 27441 27501 27561 27621 27681 27741 27801 27861 27921 27981 28041 28101 28161 28221 28281 28341 28401 28461 28521 28581 28641 28701 28761 28821 28881 28941 29001 29061 29121 29181 29241 29301 29361 29421 29481 29541 29601 29661 29721 29781 29841 29901 29961 30021 30081 30141 30201 30261 30321 30381 30441 30501 30561 30621 30681 30741 30801 30861 30921 30981 31041 31101 31161 31221 31281 31341 31401 31461 31521 31581 31641 31701 31761 31821 31881 31941 32001 32061 32121 32181 32241 32301 32361 32421 32481 32541 32601 32661 32721 32781 32841 32901 32961 33021 33081 33141 33201 33261 33321 33381 33441 33501 33561 33621 33681 33741 33801 33861 33921 33981 34041 34101 34161 34221 34281 34341 34401 34461 34521 34581 34641 34701 34761 34821 34881 34941 35001 35061 35121 35181 35241 35301 35361 35421 35481 35541 35601 35661 35721 35781 35841 35901 35961 36021 36081 36141 36201 36261 36321 36381 36441 36501 36561 36621 36681 36741 36801 36861 36921 36981 37041 37101 37161 37221 37281 37341 37401 37461 37521 37581 37641 37701 37761 37821 37881 37941 38001 38061 38121 38181 38241 38301 38361 38421 38481 38541 38601 38661 38721 38781 38841 38901 38961 39021 39081 39141 39201 39261 39321 39381 39441 39501 39561 39621 39681 39741 39801 39861 39921 39981 40041 40101 40161 40221 40281 40341 40401 40461 40521 40581 40641 40701 40761 40821 40881 40941 41001 41061 41121 41181 41241 41301 41361 41421 41481 41541 41601 41661 41721 41781 41841 41901 41961 42021 42081 42141 42201 42261 42321 42381 42441 42501 42561 42621 42681 42741 4280

192 -1014 -J-FL3 S

171 LUKINT AUF KDFL S

1024 1142 LBL 13 5

100-44388-1313

100 4336 2HID,CLAWA,DP4TD,00PCI,0CPhiP,0ESCI,0EFCI,CPhiP,0EC,
M2PP,32PP,K2DD,M2DD,02DD/NEVER \$ K2PP,

CASE CC, /CASE XX/C, N, CEIGN/V, N, REFEATE/V, N, NOLOOP, S.

1014 44 VI
REPEATE. NOLGOOP S

LOW CURRENT CASELXX S

CA 54 XX.MA TP00L.F00DYN.:TFP00L/K2DPP.K2DPP.B2PP/V.N.LUSEYD/V.N.

NASTRAN SOURCE PROGRAM COMPILATION

DDAIP-144AP: INSTRUCTION

10

VDBK 20PP/V, N, NCM20PP/V, N, NDB2PP, S

UNIT SAVE VJX20PP,NOM20PP,NOM22PP \$

112 2:13 AM //C:\N:\AND\V\N\NDM2PP\V\N\NDADF\V\N\NDM2OPP.S

1113 PARAM //C.N. AND /V.N. NDK2PP/V.N. NDFL /V.N. NEK2DPP \$

114 EUJ IV <20PP.K2XPP/NOKBFL/ M2DPP.M2PP/N0ABFL S

115 COND. LALFLI, NOKEFL. S

116 EJJ IV K3FL K2XPP/NUK20PP S

1117 COND L3LFL1.NOK2DPP S

RT118 ALU K3FL-K20PP/K2XPP_5-

6119 Laidlaw LBLFL 1 S

120 EJJIV K2XPP,K2PP/N3ABFL \$

121 CVD.....LELFL2.NGAUFL 5.

122 110 A3FL,K2XPP/K2PP/C,N.(-1.0,0.0) 5

122 710 ABFL.M2DPP/M2PP/V.N.MFACT S

1255 Page 25 of 25

1126 11:11 AM //C.V. AND/V.N. BDEBA/V.N. NOUE/V.N. NCB2PP \$

127 11:24 AM / / C N AND / V N MDEMA / V N NQUE / V N NEN2 PP \$

V.N.ANG / V.N.KDEK2 / V.N.NOGENL / V.N.VOSIMP

129 7 J 4 E <200/NOK2PP/4200/NUM2PP/3200/NOB2PP \$

1100 422P, M20D/NOA/B2PP, 020D/NOA/MAA, M00/MDEH A/E2A,
L2J1V 30D/BDEH A \$

131 C1K12NT K2PH.M2PP.B2PP.K20D.M2DD.B2DD.BDD.MDD.S

5 1000000.817F-----00000 2E1

USE TO, GM, GO, KAA, UAA, MAA, KSA, K2PP, M2PP, B2PP, KDC, DDD, MDC, GMD, GJJ, K2DD, M2DD, J2DD/C, N, CMPEV/C, N, DISP/C, N, DIRECT/C, Y, G=0.0/C, Y, 0.0/C, N, 0.0/V, N, NK2PP/V, N, NM2PP/V, N, NQ2PP/V, N, MPCF1/V, N, SING-E/V, N, DM1 T/V, N, NUUE/V, N, NCK4 GG/V, N, NUJG G/V, N, KDEK2/C, N,

Volume II

N A S T R A N S O U R C E P R O G R A M C O M P I L A T I O N

04AP-04AP INSTRUCTION

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134 LABEL 3L18 $
135 EQUIV B2DU,BDD/NOBGG/ M2DD,MDD/NOSIMP/ K2DD,KDD/KDEK2 $
136 CHKPT KDD,BDD,MDD,GDD,GMD $
136 MATGPR GP_3,USEYD,SILD,MDD//C,N,D
136 MATGPR GP_3,USEYD,SILD,KDD//C,N,D
136 SLLMAT MGG,KGG,MFF,KFF,ABFL//C,N,PRINT
136 SLEMAT KBE,MDD,KDD,.,./C,N,PRINT
136 PARTIN KDD,P9,/KBP,AEM,.,KE/C,N,-1 $
136 INADP AEM/AEMT $
136 SOLVE K3P,AERT/PDU2/C,N,1/C,N,-1 $
136 ADD PDU2,/PDU3/C,Y,A999=(1.0,0.0) $
136 PARTIN //C,N,NOP/V,N,TRUE=-1 $
136 EQUIV PDU3,PDU2/TRUE $
136 EQUIV PDU3,TRUE $
136 PARTIN PDU3,.,.,./ $
136 EQUIV PDU3 $
136 INADP AEM,PDU2,MFLD/C,N,0/C,N,-1 $
136 JUTPUT3 MFLD,PDU2,.,./C,N,0/C,Y,N1=AMF/C,Y,N2=APD $
136 PARTIN PDU2,MFLD,AEM,.,./ $
136 LABEL ER10R3 $
170 EXIT
171 END $

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NO ERRORS FOUND - EXECUTE NASTRAN PROGRAM

Appendix B5
1/8 – SCALE EXTERNAL TANK HYDROELASTIC VIBRATION
ANALYSIS – POST MAX Q FILL CONDITION $n = 0, 1, 2, 3$
(NEGATIVE OF SURFACE PRESSURE RECOVERED)

JULY 19, 1974 NASTRAN 5/13/72

NASTRAN EXECUTIVE CONTROL DECK ECHO

10,ETANK,CORPOLINO

APP DISP

SOL 3.0

TIME 25

DIAG 2

DIAG 7,8,13,14,19,21,22

ALTER 73

ADD /MAA,MFLD/MAH 1

PRAT //C.N.N10/V.N.TRUE=1 1

EQUIV MAH,MAA/TRUE 1

CUND MAH19,TRLE 1

MATDEN MAH,....// 1

LABEL MAH103 1

ALTER 81

SEENAT HGG,KGG,....//C.N.PRINT 1

ALTER 91

MATG-M COL,USET,SIL,PHIA//C.N.A

ALTER 107

SMRYAD PH1A,KAA,PHIA,..../KH/C.N.3/C.N.1/C.N.2/C.N.1 1

SOLVE MI,KH/WH/C.N.1 1

SMRYAD PICJ2,PH1A,WH,..../PD2/C.N.3 1

MATDEN WH,PD2,....// 1

ENDAT TER

CUND

ORIGINAL PAGE IS
OF POOR QUALITY

C A S E C O N T R O L D E C K E C H O

CARD
COUNT

1 TITLE=EXTERNAL TANK W. FLUID
2 SUBTITLE=HARMONIC REDUCTION
3 MAXLINES=120000
4 SPC=1
5 MPC=1
6 METHOD=1
7 VECTOR=ALL
8 OUTPUT(FLOT)
9 PLOTTER CALCOMP 765.105
10 SET 1 ALL
11 SET 2 = 250 THRU 257
12 SET 3 = 91 THRU 58
13 SET 4 = 5117 THRU 5204
14 SET 5 = 2370 THRU 2440
15 AXES Z,M,Y,M,Y
16 MAXIMUM DEFORMATION 10.0
17 FIND SCALE,ORIGIN 1
18 FLOT
19 FLOT MODAL DEFORMATION,SET 1,ORIGIN 1,SHAPE
20 AXES X,M,Y,Z
21 VIEW = C.O.O.O.O.O
22 FIND SCALE,ORIGIN 2,SET 2,REGION .4,.1,1,.1.
23 FLOT MODAL DEFORMATION 0.1,SET 2 ORIGIN 2,SHAPE,
24 SET 2,SYMMETRY Y,SHAPE
25 FIND SCALE,ORIGIN 3,SET 3,REGION .4,.1,1,.1.
26 FLOT MODAL DEFORMATION 0.1,SET 3 ORIGIN 3,SHAPE,
27 SET 3,SYMMETRY Y,SHAPE
28 AXES M,X,2,M,Y
29 VIEW = 4C.O.O.O.O.C.C
30 FIND SCALE,ORIGIN 4,SET 4
31 FLOT SET 4 ORIGIN 4,SHAPE
32 FLOT MODAL DEFORMATION,SET 4,ORIGIN 4,SHAPE
33 FIND SCALE,ORIGIN 5,SET 5
34 FLOT SET 5 ORIGIN 5
35 FLOT MODAL DEFORMATION,SET 5,ORIGIN 5,SHAPE
36 BEGIN BULK

*** USER INFORMATION MESSAGE 207. BULK DATA NOT SORTED,XSORT WILL RE-ORDER DECK.

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1- CBAR	5517	5517	5517	5117	5118	.0	.0	1.0	1	
2- CBAR	5518	5517	5518	5118	5119	.0	.0	1.0	1	
3- CBAR	5519	5517	5519	5119	5120	.0	.0	1.0	1	
4- CBAR	5520	5517	5520	5120	5121	.0	.0	1.0	1	
5- CBAR	5521	5517	5521	5121	5122	.0	.0	1.0	1	
6- CBAR	5522	5517	5522	5122	5123	.0	.0	1.0	1	
7- CBAR	5523	5517	5523	5123	5124	.0	.0	1.0	1	
8- CBAR	5524	5517	5524	5124	5125	.0	.0	1.0	1	
9- CBAR	8440	8440	8070	8071	8072	.0	.0	1.0	1	28440
10- CBAR	8440	8440	8071	8072	8073	.0	.0	1.0	1	28441
11- CBAR	8441	8440	8072	8073	8074	.0	.0	1.0	1	28442
12- CBAR	8442	8440	8073	8074	8075	.0	.0	1.0	1	28443
13- CBAR	8443	8440	8074	8075	8076	.0	.0	1.0	1	28444
14- CBAR	8444	8440	8075	8076	8077	.0	.0	1.0	1	28445
15- CBAR	8445	8440	8076	8077	8078	.0	.0	1.0	1	28446
16- CBAR	8446	8440	8077	8078	8079	.0	.0	1.0	1	28447
17- CBAR	8447	8440	8078	8079	8080	.0	.0	1.0	1	28448
18- CBAR	8448	8440	8079	8080	8081	.0	.0	1.0	1	28449
19- CBAR	8449	8440	8080	8081	8082	.0	.0	1.0	1	28450
20- CBAR	8450	8450	8170	8171	8172	.0	.0	1.0	1	28451
21- CBAR	8451	8450	8171	8172	8173	.0	.0	1.0	1	28452
22- CBAR	8452	8450	8172	8173	8174	.0	.0	1.0	1	28453
23- CBAR	8453	8450	8173	8174	8175	.0	.0	1.0	1	28454
24- CBAR	8454	8450	8174	8175	8176	.0	.0	1.0	1	28455
25- CBAR	8455	8450	8175	8176	8177	.0	.0	1.0	1	28456
26- CBAR	8456	8450	8176	8177	8178	.0	.0	1.0	1	28457
27- CBAR	8457	8450	8177	8178	8179	.0	.0	1.0	1	28458
28- CBAR	8458	8450	8178	8179	8180	.0	.0	1.0	1	28459
29- CBAR	8459	8450	8179	8180	8181	.0	.0	1.0	1	28460
30- CBAR	8460	8460	8180	8181	8182	.0	.0	1.0	1	28461
31- CBAR	8461	8460	8181	8182	8183	.0	.0	1.0	1	28462
32- CBAR	8462	8460	8182	8183	8184	.0	.0	1.0	1	28463
33- CBAR	8463	8460	8183	8184	8185	.0	.0	1.0	1	28464
34- CBAR	8464	8460	8184	8185	8186	.0	.0	1.0	1	28465
35- CBAR	8465	8460	8185	8186	8187	.0	.0	1.0	1	28466
36- CBAR	8466	8460	8186	8187	8188	.0	.0	1.0	1	28467
37- CBAR	8467	8460	8187	8188	8189	.0	.0	1.0	1	28468
38- CBAR	8468	8460	8188	8189	8190	.0	.0	1.0	1	28469
39- CBAR	8469	8460	8189	8190	8191	.0	.0	1.0	1	28470
40- CBAR	8470	8460	8190	8191	8192	.0	.0	1.0	1	28471
41- CBAR	8471	8460	8191	8192	8193	.0	.0	1.0	1	28472
42- CBAR	8472	8460	8192	8193	8194	.0	.0	1.0	1	28473
43- CBAR	8473	8460	8193	8194	8195	.0	.0	1.0	1	28474
44- CBAR	8474	8460	8194	8195	8196	.0	.0	1.0	1	28475
45- CBAR	8475	8460	8195	8196	8197	.0	.0	1.0	1	28476
46- CBAR	8476	8460	8196	8197	8198	.0	.0	1.0	1	28477
47- CBAR	8477	8460	8197	8198	8199	.0	.0	1.0	1	28478
48- CBAR	8478	8460	8198	8199	8200	.0	.0	1.0	1	28479
49- CBAR	8479	8460	8199	8200	8201	.0	.0	1.0	1	28480
50- CBAR	8480	8460	8200	8201	8202	.0	.0	1.0	1	28481

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
51-	CEAF	8464	8460	8194	8195	.0	.0	1.0	1	CE8464
52-	CEAF	8464		-.185	0.0	0.0	-.185	0.0	0.0	
53-	CEAF	8465	8460	8195	8196	.0	.0	1.0	1	CE8465
54-	CEAF	8465		-.185	0.0	0.0	-.185	0.0	0.0	
55-	CEAF	8466	8460	8196	8197	.0	.0	1.0	1	CE8466
56-	CEAF	8466		-.185	0.0	0.0	-.185	0.0	0.0	
57-	CEAF	8467	8460	8197	8198	.0	.0	1.0	1	CE8467
58-	CEAF	8467		-.185	0.0	0.0	-.185	0.0	0.0	
59-	CEAF	8470	8470	8210	8211	.0	.0	1.0	1	CE8470
60-	CEAF	8470		-1.401	0.0	0.0	-1.401	0.0	0.0	
61-	CEAF	8471	8470	8211	8212	.0	.0	1.0	1	CE8471
62-	CEAF	8471		-1.401	0.0	0.0	-1.401	0.0	0.0	
63-	CEAF	8472	8470	8212	8213	.0	.0	1.0	1	CE8472
64-	CEAF	8472		-1.401	0.0	0.0	-1.401	0.0	0.0	
65-	CEAF	8473	8470	8213	8214	.0	.0	1.0	1	CE8473
66-	CEAF	8473		-1.401	0.0	0.0	-1.401	0.0	0.0	
67-	CEAF	8474	8470	8214	8215	.0	.0	1.0	1	CE8474
68-	CEAF	8474		-1.401	0.0	0.0	-1.401	0.0	0.0	
69-	CEAF	8475	8470	8215	8216	.0	.0	1.0	1	CE8475
70-	CEAF	8475		-1.401	0.0	0.0	-1.401	0.0	0.0	
71-	CEAF	8476	8470	8216	8217	.0	.0	1.0	1	CE8476
72-	CEAF	8476		-1.401	0.0	0.0	-1.401	0.0	0.0	
73-	CEAF	8477	8470	8217	8218	.0	.0	1.0	1	CE8477
74-	CEAF	8477		-1.401	0.0	0.0	-1.401	0.0	0.0	
75-	CEAF	8480	8480	8230	8231	.0	.0	1.0	1	CE8480
76-	CEAF	8480		-.1850	0.0	0.0	-.1850	0.0	0.0	
77-	CEAF	8481	8480	8231	8232	.0	.0	1.0	1	CE8481
78-	CEAF	8481		-.1850	0.0	0.0	-.1850	0.0	0.0	
79-	CEAF	8482	8480	8232	8233	.0	.0	1.0	1	CE8482
80-	CEAF	8482		-1.850	0.0	0.0	-1.850	0.0	0.0	
81-	CEAF	8483	8480	8233	8234	.0	.0	1.0	1	CE8483
82-	CEAF	8483		-.1850	0.0	0.0	-.1850	0.0	0.0	
83-	CEAF	8484	8480	8234	8235	.0	.0	1.0	1	CE8484
84-	CEAF	8484		-1.850	0.0	0.0	-1.850	0.0	0.0	
85-	CEAF	8485	8480	8235	8236	.0	.0	1.0	1	CE8485
86-	CEAF	8485		-1.850	0.0	0.0	-1.850	0.0	0.0	
87-	CEAF	8486	8480	8236	8237	.0	.0	1.0	1	CE8486
88-	CEAF	8486		-1.850	0.0	0.0	-1.850	0.0	0.0	
89-	CEAF	8487	8480	8237	8238	.0	.0	1.0	1	CE8487
90-	CEAF	8487		-1.850	0.0	0.0	-1.850	0.0	0.0	
91-	CEAF	8490	8490	8250	8251	.0	.0	1.0	1	CE8490
92-	CEAF	8490		-1.850	0.0	0.0	-1.850	0.0	0.0	
93-	CEAF	8491	8490	8251	8252	.0	.0	1.0	1	CE8491
94-	CEAF	8491		-1.850	0.0	0.0	-1.850	0.0	0.0	
95-	CEAF	8492	8490	8252	8253	.0	.0	1.0	1	CE8492
96-	CEAF	8492		-1.850	0.0	0.0	-1.850	0.0	0.0	
97-	CEAF	8493	8490	8253	8254	.0	.0	1.0	1	CE8493
98-	CEAF	8493		-1.850	0.0	0.0	-1.850	0.0	0.0	
99-	CEAF	8494	8490	8254	8255	.0	.0	1.0	1	CE8494
100-	CEAF	8494		-1.850	0.0	0.0	-1.850	0.0	0.0	

EXTERNAL TANK W. FLUID

HARMONIC REDUCTION

JULY 19, 1974

NASTRAN 5/13/72

SORTED BULK DATA ECHD

CARD

COUNT	1	2	3	4	5	6	7	8	9	10
101- CEAR	8490	8490	8255	8256	0.0	0.0	0.0	1.0	1	0.0
102- CEAR	8495	8495	8255	8256	0.0	0.0	0.0	1.0	1	0.0
103- CEAR	8496	8496	8256	8257	0.0	0.0	0.0	1.0	1	0.0
104- CEAR	8497	8497	8257	8258	0.0	0.0	0.0	1.0	1	0.0
105- CEAR	8498	8498	8258	8259	0.0	0.0	0.0	1.0	1	0.0
106- CEAR	8500	8500	8270	8271	0.0	0.0	0.0	1.0	1	0.0
107- CEAR	8501	8501	8271	8272	0.0	0.0	0.0	1.0	1	0.0
108- CEAR	8502	8502	8272	8273	0.0	0.0	0.0	1.0	1	0.0
109- CEAR	8503	8503	8273	8274	0.0	0.0	0.0	1.0	1	0.0
110- CEAR	8504	8504	8274	8275	0.0	0.0	0.0	1.0	1	0.0
111- CEAR	8505	8505	8275	8276	0.0	0.0	0.0	1.0	1	0.0
112- CEAR	8506	8506	8276	8277	0.0	0.0	0.0	1.0	1	0.0
113- CEAR	8507	8507	8277	8278	0.0	0.0	0.0	1.0	1	0.0
114- CEAR	8508	8508	8278	8279	0.0	0.0	0.0	1.0	1	0.0
115- CEAR	8509	8509	8279	8280	0.0	0.0	0.0	1.0	1	0.0
116- CEAR	8510	8510	8280	8281	0.0	0.0	0.0	1.0	1	0.0
117- CEAR	8511	8511	8281	8282	0.0	0.0	0.0	1.0	1	0.0
118- CEAR	8512	8512	8282	8283	0.0	0.0	0.0	1.0	1	0.0
119- CEAR	8513	8513	8283	8284	0.0	0.0	0.0	1.0	1	0.0
120- CEAR	8514	8514	8284	8285	0.0	0.0	0.0	1.0	1	0.0
121- CEAR	8515	8515	8285	8286	0.0	0.0	0.0	1.0	1	0.0
122- CEAR	8516	8516	8286	8287	0.0	0.0	0.0	1.0	1	0.0
123- CEAR	8517	8517	8287	8288	0.0	0.0	0.0	1.0	1	0.0
124- CEAR	8518	8518	8288	8289	0.0	0.0	0.0	1.0	1	0.0
125- CEAR	8519	8519	8289	8290	0.0	0.0	0.0	1.0	1	0.0
126- CEAR	8520	8520	8290	8291	0.0	0.0	0.0	1.0	1	0.0
127- CEAR	8521	8521	8291	8292	0.0	0.0	0.0	1.0	1	0.0
128- CEAR	8522	8522	8292	8293	0.0	0.0	0.0	1.0	1	0.0
129- CEAR	8523	8523	8293	8294	0.0	0.0	0.0	1.0	1	0.0
130- CEAR	8524	8524	8294	8295	0.0	0.0	0.0	1.0	1	0.0
131- CEAR	8525	8525	8295	8296	0.0	0.0	0.0	1.0	1	0.0
132- CEAR	8526	8526	8296	8297	0.0	0.0	0.0	1.0	1	0.0
133- CEAR	8527	8527	8297	8298	0.0	0.0	0.0	1.0	1	0.0
134- CEAR	8528	8528	8298	8299	0.0	0.0	0.0	1.0	1	0.0
135- CEAR	8529	8529	8299	8300	0.0	0.0	0.0	1.0	1	0.0
136- CEAR	8530	8530	8300	8301	0.0	0.0	0.0	1.0	1	0.0
137- CEAR	8531	8531	8301	8302	0.0	0.0	0.0	1.0	1	0.0
138- CEAR	8532	8532	8302	8303	0.0	0.0	0.0	1.0	1	0.0
139- CEAR	8533	8533	8303	8304	0.0	0.0	0.0	1.0	1	0.0
140- CEAR	8534	8534	8304	8305	0.0	0.0	0.0	1.0	1	0.0
141- CEAR	8535	8535	8305	8306	0.0	0.0	0.0	1.0	1	0.0
142- CEAR	8536	8536	8306	8307	0.0	0.0	0.0	1.0	1	0.0
143- CEAR	8537	8537	8307	8308	0.0	0.0	0.0	1.0	1	0.0
144- CEAR	8538	8538	8308	8309	0.0	0.0	0.0	1.0	1	0.0
145- CEAR	8539	8539	8309	8310	0.0	0.0	0.0	1.0	1	0.0
146- CEAR	8540	8540	8310	8311	0.0	0.0	0.0	1.0	1	0.0
147- CEAR	8541	8541	8311	8312	0.0	0.0	0.0	1.0	1	0.0
148- CEAR	8542	8542	8312	8313	0.0	0.0	0.0	1.0	1	0.0
149- CEAR	8543	8543	8313	8314	0.0	0.0	0.0	1.0	1	0.0
150- CEAR	8544	8544	8314	8315	0.0	0.0	0.0	1.0	1	0.0
151- CEAR	8545	8545	8315	8316	0.0	0.0	0.0	1.0	1	0.0
152- CEAR	8546	8546	8316	8317	0.0	0.0	0.0	1.0	1	0.0
153- CEAR	8547	8547	8317	8318	0.0	0.0	0.0	1.0	1	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

S O R T E D B U L K D A T A E C H O

CARD

COUNT	1	2	3	4	5	6	7	8	9	10
CBAR	8526	8526	8316	8317	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8526	8526	8316	8317	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8527	8527	8317	8318	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8527	8527	8317	8318	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8530	8530	8330	8331	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8530	8530	8330	8331	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8531	8531	8331	8332	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8531	8531	8331	8332	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8532	8532	8332	8333	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8532	8532	8332	8333	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8533	8533	8333	8334	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8533	8533	8333	8334	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8534	8534	8334	8335	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8534	8534	8334	8335	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8535	8535	8335	8336	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8535	8535	8335	8336	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8536	8536	8336	8337	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8536	8536	8336	8337	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8537	8537	8337	8338	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8537	8537	8337	8338	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8538	8538	8338	8339	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8538	8538	8338	8339	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8539	8539	8339	8340	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8539	8539	8339	8340	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8540	8540	8370	8371	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8540	8540	8370	8371	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8541	8541	8371	8372	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8541	8541	8371	8372	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8542	8542	8372	8373	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8542	8542	8372	8373	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8543	8543	8373	8374	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8543	8543	8373	8374	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8544	8544	8374	8375	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8544	8544	8374	8375	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8545	8545	8375	8376	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8545	8545	8375	8376	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8546	8546	8376	8377	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8546	8546	8376	8377	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8547	8547	8377	8378	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8547	8547	8377	8378	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8550	8550	8350	8351	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8550	8550	8350	8351	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8551	8551	8351	8352	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8551	8551	8351	8352	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8552	8552	8352	8353	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8552	8552	8352	8353	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8553	8553	8353	8354	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8553	8553	8353	8354	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8554	8554	8354	8355	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8554	8554	8354	8355	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8555	8555	8355	8356	0.0	0.0	0.0	1.0	1.0	0.0
CBAR	8555	8555	8355	8356	0.0	0.0	0.0	1.0	1.0	0.0

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
201- CBAR	8552	8550	8355	8356	1.0	0.0	0.0	1	0.0	28555
202- CBAR	8553	8550	8356	8357	1.2194	-1.4010	0.0	1	0.0	28556
203- CBAR	8554	8550	8356	8357	0.0	0.0	0.0	1	0.0	28557
204- CBAR	8555	8550	8357	8358	0.0	0.0	0.0	1	0.0	28558
205- CBAR	8556	8550	8357	8358	0.0	0.0	0.0	1	0.0	28559
206- CBAR	8557	8550	8357	8358	0.0	0.0	0.0	1	0.0	28560
207- CBAR	8558	8550	8357	8358	0.0	0.0	0.0	1	0.0	28561
208- CBAR	8559	8550	8357	8358	0.0	0.0	0.0	1	0.0	28562
209- CBAR	8560	8550	8357	8358	0.0	0.0	0.0	1	0.0	28563
210- CBAR	8561	8550	8357	8358	0.0	0.0	0.0	1	0.0	28564
211- CBAR	8562	8550	8357	8358	0.0	0.0	0.0	1	0.0	28565
212- CBAR	8563	8550	8357	8358	0.0	0.0	0.0	1	0.0	28566
213- CBAR	8564	8550	8357	8358	0.0	0.0	0.0	1	0.0	28567
214- CBAR	8565	8550	8357	8358	0.0	0.0	0.0	1	0.0	28568
215- CBAR	8566	8550	8357	8358	0.0	0.0	0.0	1	0.0	28569
216- CBAR	8567	8550	8357	8358	0.0	0.0	0.0	1	0.0	28570
217- CBAR	8568	8550	8357	8358	0.0	0.0	0.0	1	0.0	28571
218- CBAR	8569	8550	8357	8358	0.0	0.0	0.0	1	0.0	28572
219- CBAR	8570	8550	8357	8358	0.0	0.0	0.0	1	0.0	28573
220- CBAR	8571	8550	8357	8358	0.0	0.0	0.0	1	0.0	28574
221- CBAR	8572	8550	8357	8358	0.0	0.0	0.0	1	0.0	28575
222- CBAR	8573	8550	8357	8358	0.0	0.0	0.0	1	0.0	28576
223- CBAR	8574	8550	8357	8358	0.0	0.0	0.0	1	0.0	28577
224- CBAR	8575	8550	8357	8358	0.0	0.0	0.0	1	0.0	28578
225- CBAR	8576	8550	8357	8358	0.0	0.0	0.0	1	0.0	28579
226- CBAR	8577	8550	8357	8358	0.0	0.0	0.0	1	0.0	28580
227- CBAR	8578	8550	8357	8358	0.0	0.0	0.0	1	0.0	28581
228- CBAR	8579	8550	8357	8358	0.0	0.0	0.0	1	0.0	28582
229- CBAR	8580	8550	8357	8358	0.0	0.0	0.0	1	0.0	28583
230- CBAR	8581	8550	8357	8358	0.0	0.0	0.0	1	0.0	28584
231- CBAR	8582	8550	8357	8358	0.0	0.0	0.0	1	0.0	28585
232- CBAR	8583	8550	8357	8358	0.0	0.0	0.0	1	0.0	28586
233- CBAR	8584	8550	8357	8358	0.0	0.0	0.0	1	0.0	28587
234- CBAR	8585	8550	8357	8358	0.0	0.0	0.0	1	0.0	28588
235- CBAR	8586	8550	8357	8358	0.0	0.0	0.0	1	0.0	28589
236- CBAR	8587	8550	8357	8358	0.0	0.0	0.0	1	0.0	28590
237- CBAR	8588	8550	8357	8358	0.0	0.0	0.0	1	0.0	28591
238- CBAR	8589	8550	8357	8358	0.0	0.0	0.0	1	0.0	28592
239- CBAR	8590	8550	8357	8358	0.0	0.0	0.0	1	0.0	28593
240- CBAR	8591	8550	8357	8358	0.0	0.0	0.0	1	0.0	28594
241- CBAR	8592	8550	8357	8358	0.0	0.0	0.0	1	0.0	28595
242- CBAR	8593	8550	8357	8358	0.0	0.0	0.0	1	0.0	28596
243- CBAR	8594	8550	8357	8358	0.0	0.0	0.0	1	0.0	28597
244- CBAR	8595	8550	8357	8358	0.0	0.0	0.0	1	0.0	28598
245- CBAR	8596	8550	8357	8358	0.0	0.0	0.0	1	0.0	28599
246- CBAR	8597	8550	8357	8358	0.0	0.0	0.0	1	0.0	28600
247- CBAR	8598	8550	8357	8358	0.0	0.0	0.0	1	0.0	28601
248- CBAR	8599	8550	8357	8358	0.0	0.0	0.0	1	0.0	28602
249- CBAR	8600	8550	8357	8358	0.0	0.0	0.0	1	0.0	28603
250- CBAR	8601	8550	8357	8358	0.0	0.0	0.0	1	0.0	28604
251- CBAR	8602	8550	8357	8358	0.0	0.0	0.0	1	0.0	28605
252- CBAR	8603	8550	8357	8358	0.0	0.0	0.0	1	0.0	28606
253- CBAR	8604	8550	8357	8358	0.0	0.0	0.0	1	0.0	28607
254- CBAR	8605	8550	8357	8358	0.0	0.0	0.0	1	0.0	28608
255- CBAR	8606	8550	8357	8358	0.0	0.0	0.0	1	0.0	28609
256- CBAR	8607	8550	8357	8358	0.0	0.0	0.0	1	0.0	28610
257- CBAR	8608	8550	8357	8358	0.0	0.0	0.0	1	0.0	28611
258- CBAR	8609	8550	8357	8358	0.0	0.0	0.0	1	0.0	28612
259- CBAR	8610	8550	8357	8358	0.0	0.0	0.0	1	0.0	28613
260- CBAR	8611	8550	8357	8358	0.0	0.0	0.0	1	0.0	28614
261- CBAR	8612	8550	8357	8358	0.0	0.0	0.0	1	0.0	28615
262- CBAR	8613	8550	8357	8358	0.0	0.0	0.0	1	0.0	28616
263- CBAR	8614	8550	8357	8358	0.0	0.0	0.0	1	0.0	28617
264- CBAR	8615	8550	8357	8358	0.0	0.0	0.0	1	0.0	28618
265- CBAR	8616	8550	8357	8358	0.0	0.0	0.0	1	0.0	28619
266- CBAR	8617	8550	8357	8358	0.0	0.0	0.0	1	0.0	28620
267- CBAR	8618	8550	8357	8358	0.0	0.0	0.0	1	0.0	28621
268- CBAR	8619	8550	8357	8358	0.0	0.0	0.0	1	0.0	28622
269- CBAR	8620	8550	8357	8358	0.0	0.0	0.0	1	0.0	28623
270- CBAR	8621	8550	8357	8358	0.0	0.0	0.0	1	0.0	28624
271- CBAR	8622	8550	8357	8358	0.0	0.0	0.0	1	0.0	28625
272- CBAR	8623	8550	8357	8358	0.0	0.0	0.0	1	0.0	28626
273- CBAR	8624	8550	8357	8358	0.0	0.0	0.0	1	0.0	28627
274- CBAR	8625	8550	8357	8358	0.0	0.0	0.0	1	0.0	28628
275- CBAR	8626	8550	8357	8358	0.0	0.0	0.0	1	0.0	28629
276- CBAR	8627	8550	8357	8358	0.0	0.0	0.0	1	0.0	28630
277- CBAR	8628	8550	8357	8358	0.0	0.0	0.0	1	0.0	28631
278- CBAR	8629	8550	8357	8358	0.0	0.0	0.0	1	0.0	28632
279- CBAR	8630	8550	8357	8358	0.0	0.0	0.0	1	0.0	28633
280- CBAR	8631	8550	8357	8358	0.0	0.0	0.0	1	0.0	28634
281- CBAR	8632	8550	8357	8358	0.0	0.0	0.0	1	0.0	28635
282- CBAR	8633	8550	8357	8358	0.0	0.0	0.0	1	0.0	28636
283- CBAR	8634	8550	8357	8358	0.0	0.0	0.0	1	0.0	28637
284- CBAR	8635	8550	8357	8358	0.0	0.0	0.0	1	0.0	28638
285- CBAR	8636	8550	8357	8358	0.0	0.0	0.0	1	0.0	28639
286- CBAR	8637	8550	8357	8358	0.0	0.0	0.0	1	0.0	28640
287- CBAR	8638	8550	8357	8358	0.0	0.0	0.0	1	0.0	28641
288- CBAR	8639	8550	8357	8358	0.0	0.0	0.0	1	0.0	28642
289- CBAR	8640	8550	8357	8358	0.0	0.0	0.0	1	0.0	28643
290- CBAR	8641	8550	8357	8358	0.0	0.0	0.0	1	0.0	28644
291- CBAR	8642	8550	8357	8358	0.0	0.0	0.0	1	0.0	28645
292- CBAR	8643	8550	8357	8358	0.0	0.0	0.0	1	0.0	28646
293- CBAR	8644	8550	8357	8358	0.0	0.0	0.0	1	0.0	28647
294- CBAR	8645	8550	8357	8358	0.0	0.0	0.0	1	0.0	28648
295- CBAR	8646	8550	8357	8358	0.0	0.0	0.0	1	0.0	28649
296- CBAR	8647	8550	8357	8358	0.0	0.0	0.0	1	0.0	28650
297- CBAR	8648	8550	8357	8358	0.0	0.0	0.0	1	0.0	28651
298- CBAR	8649	8550	8357	8358	0.0	0.0	0.0	1	0.0	28652
299- CBAR	8650	8550	8357	8358	0.0	0.0	0.0	1	0.0	28653
300- CBAR	8651	8550	8357	8358	0.0	0.0	0.0	1	0.0	28654

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
251-	CBAR	8724	8420	8134	8135	.0	.0	1.0	1	0.0
252-	CBAR	8725	8420	8135	8136	.0	-1.4010	0.0	0.0	0.0
253-	CBAR	8726	8420	8136	8137	.0	-1.401	0.0	0.0	0.0
254-	CBAR	8727	8420	8137	8138	.0	-1.401	0.0	0.0	0.0
255-	CBAR	8728	8420	8138	8139	.0	-1.401	0.0	0.0	0.0
256-	CBAR	8729	8420	8139	8140	.0	-1.401	0.0	0.0	0.0
257-	CBAR	8730	8420	8140	8141	.0	-1.401	0.0	0.0	0.0
258-	CBAR	8731	8420	8141	8142	.0	-1.401	0.0	0.0	0.0
259-	CBAR	8732	8420	8142	8143	.0	-1.401	0.0	0.0	0.0
260-	CBAR	8733	8420	8143	8144	.0	-1.401	0.0	0.0	0.0
261-	CBAR	8734	8420	8144	8145	.0	-1.401	0.0	0.0	0.0
262-	CBAR	8735	8420	8145	8146	.0	-1.401	0.0	0.0	0.0
263-	CBAR	8736	8420	8146	8147	.0	-1.401	0.0	0.0	0.0
264-	CBAR	8737	8420	8147	8148	.0	-1.401	0.0	0.0	0.0
265-	CBAR	8738	8420	8148	8149	.0	-1.401	0.0	0.0	0.0
266-	CBAR	8739	8420	8149	8150	.0	-1.401	0.0	0.0	0.0
267-	CBAR	8740	8420	8150	8151	.0	-1.401	0.0	0.0	0.0
268-	CBAR	8741	8420	8151	8152	.0	-1.401	0.0	0.0	0.0
269-	CBAR	8742	8420	8152	8153	.0	-1.401	0.0	0.0	0.0
270-	CBAR	8743	8420	8153	8154	.0	-1.401	0.0	0.0	0.0
271-	CBAR	8744	8420	8154	8155	.0	-1.401	0.0	0.0	0.0
272-	CBAR	8745	8420	8155	8156	.0	-1.401	0.0	0.0	0.0
273-	CBAR	8746	8420	8156	8157	.0	-1.401	0.0	0.0	0.0
274-	CBAR	8747	8420	8157	8158	.0	-1.401	0.0	0.0	0.0
275-	CBAR	8748	8420	8158	8159	.0	-1.401	0.0	0.0	0.0
276-	CBAR	8749	8420	8159	8160	.0	-1.401	0.0	0.0	0.0
277-	CBAR	8750	8420	8160	8161	.0	-1.401	0.0	0.0	0.0
278-	CCNM2	8751	8290	69	.001053					
279-	CCNM2	8752	8290	69	.000663					
280-	CCNM2	8753	8290	69	.000234					
281-	CCNM2	8754	8290	69	.001027					
282-	CCNM2	8755	8290	69	.00026					
283-	CCNM2	8756	8290	69	.000572					
284-	CCNM2	8757	8290	69	.001508					
285-	CCNM2	8758	8290	69	.000949					
286-	CCNM2	8759	8290	69	.000884					
287-	CCNM2	8760	8290	69	.000880					
288-	CCNM2	8761	8290	69	.000880					
289-	CCNM2	8762	8290	69	.000880					
290-	CCNM2	8763	8290	69	.000880					
291-	CCNM2	8764	8290	69	.000880					
292-	CCNM2	8765	8290	69	.000880					
293-	CCNM2	8766	8290	69	.000880					
294-	CCNM2	8767	8290	69	.000880					
295-	CCNM2	8768	8290	69	.000880					
296-	CCNM2	8769	8290	69	.000880					
297-	CCNM2	8770	8290	69	.000880					
298-	CCNM2	8771	8290	69	.000880					
299-	CCNM2	8772	8290	69	.000880					
300-	CCNM2	8773	8290	69	.000880					

EXTERNAL TANK N. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO												
CARD	1	2	3	4	5	6	7	8	9	10		
301- CONROD	8613	8273	8293	8600	8600	.0458						
302- CONFCO	8614	8293	8313	8600	8600	.0458						
303- CONROD	8615	8335	8335	8600	8600	.0458						
304- CONROD	8616	8335	8373	8600	8600	.0458						
305- CONROD	8620	8134	8140	8600	8600	.0870						
306- CONROD	8621	8290	8294	8600	8600	.2630						
307- CONROD	8622	8294	8299	8600	8600	.2630						
308- CONROD	8623	8330	8336	8600	8600	.2630						
309- CONROD	8624	8336	8341	8600	8600	.2630						
310- CONROD	8625	8352	8359	8600	8600	.2630						
311- CONROD	8626	835E	8360	8600	8600	.2630						
312- CONROD	8627	832E	8331	8600	8600	.378						
313- CONROD	8628	832E	8290	8600	8600	.933						
314- CONROD	8629	8325	8334	8500	8500	.263						
315- CORC2C	69	0	-81.5683.0	35.5985	66.9096	.0	26.5170	669				
316- 669	68.25	0.0	48.432									
317- CORC2C	100	656	74.738	-30.494	6.138	200.0	-30.494	6.138	26.5170	669		
318- ECSSRM	74.738	0.0	0.0									
319- CORC2C	5001	0	-81.5683.0	35.5985	66.9096	.0	26.5170	669				
320- 669	68.25	0.0	48.432									
321- CORC2C	5100	0	-81.5683.0	35.5985	66.9096	.0	26.5170	669				
322- EC5100	68.25	0.0	48.432									
323- CORC2R	101	656	74.738	-30.494	6.138	74.738	-28.570115.6963	6.138	26.5170	669		
324- ECSSRM	200.	-30.494	6.138									
325- CORC2R	656	0	-81.5683.0	35.5985	-80.2278.0	57.5136	6696					
326- 669	68.25	0.0	48.432									
327- CORC2R	3001	0	-81.5683.0	35.5985	-80.2278.0	57.5136	6696					
328- EC3001	68.25	0.0	48.432									
329- CORC2R	3002	656	245.7536-16.463111.0003	245.7536-13.75	24.9514	6696						
330- EC3002	300.	-16.4631	11.0003									
331- CORC2R	10000	0	-81.5683.0	35.5985	66.9096	.0	26.5170	6696				
332- EC10000	68.25	0.0	48.432									
333- CORC2S	10002	10000	0.0	0.0	0.0	0.0	0.0	0.0	33.14	6696		
334- EC10002	1.	0.	33.14									
335- CORC2S	10003	10000	0.0	0.0	0.0	0.0	0.0	0.0	38.65	6696		
336- EC10003	1.	0.	38.65									
337- CORC2S	10004	10000	0.0	0.0	0.0	0.0	0.0	0.0	45.12	6696		
338- EC10004	1.	0.	45.12									
339- CORC2S	10005	10000	0.0	0.0	0.0	0.0	0.0	0.0	53.52	6696		
340- EC10005	1.	0.	53.52									
341- CORC2S	10006	10000	0.0	0.0	0.0	0.0	0.0	0.0	59.68	6696		
342- EC10006	1.	0.	59.68									
343- CORC2S	10010	10000	0.0	0.0	0.0	0.0	0.0	0.0	82.19	6696		
344- EC10010	1.	0.	82.19									
345- CORC2S	10011	10000	0.0	0.0	0.0	0.0	0.0	0.0	80.13	6696		
346- EC10011	1.	0.	80.13									
347- CORC2S	10012	10000	0.0	0.0	0.0	0.0	0.0	0.0	77.08	6696		
348- EC10012	1.	0.	77.08									
349- CORC2S	10013	10000	0.0	0.0	0.0	0.0	0.0	0.0	77.87	6696		
350- EC10013	1.	0.	77.87									

ORIGINAL PAGE IS
OF POOR QUALITY

CARD	1	2	3	4	5	6	7	8	9	10
CJUNT										
351-	COR2S	10014	10000	0.0	0.0	73.78	0.0	0.0	74.78	EC10014
352-	EC10014	1.	0.	74.78						
353-	COR2S	10015	10000	0.0	0.0	77.08	0.0	0.0	78.08	EC10015
354-	EC10015	1.	0.	78.08						
355-	COR2S	10016	10000	0.0	0.0	83.94	0.0	0.0	84.94	EC10016
356-	EC10016	1.	0.	84.94						
357-	COR2S	20014	10000	0.0	0.0	255.71	0.0	0.0	256.71	EC20014
358-	EC20014	1.	0.	256.71						
359-	COR2S	20015	10000	0.0	0.0	244.69	0.0	0.0	245.69	EC20015
360-	EC20015	1.	0.	245.69						
361-	COR2S	20016	10000	0.0	0.0	248.21	0.0	0.0	249.21	EC20016
362-	EC20016	1.	0.	249.21						
363-	COR2S	20017	10000	0.0	0.0	248.52	0.0	0.0	249.52	EC20017
364-	EC20017	1.	0.	249.52						
365-	COLA2	5005	5005	5014	5014	5027	5026			
366-	COLA2	5010	5005	5014	5015	5028	5027			
367-	COLA2	5011	5005	5015	5016	5029	5028			
368-	COLA2	5012	5005	5016	5017	5030	5029			
369-	COLA2	5013	5005	5017	5018	5031	5030			
370-	COLA2	5014	5005	5018	5019	5032	5031			
371-	COLA2	5015	5005	5019	5020	5033	5032			
372-	COLA2	5016	5005	5020	5021	5034	5033			
373-	COLA2	5017	5005	5026	5027	5040	5039			
374-	COLA2	5018	5005	5027	5028	5041	5040			
375-	COLA2	5019	5005	5028	5029	5042	5041			
376-	COLA2	5020	5005	5029	5030	5043	5042			
377-	COLA2	5021	5005	5030	5031	5044	5043			
378-	COLA2	5022	5005	5031	5032	5045	5044			
379-	COLA2	5023	5005	5032	5033	5046	5045			
380-	COLA2	5024	5005	5033	5034	5047	5046			
381-	COLA2	5025	5005	5039	5040	5053	5052			
382-	COLA2	5026	5005	5040	5041	5054	5053			
383-	COLA2	5027	5005	5041	5042	5056	5054			
384-	COLA2	5028	5005	5042	5043	5057	5056			
385-	COLA2	5029	5005	5043	5044	5058	5057			
386-	COLA2	5030	5005	5044	5045	5059	5058			
387-	COLA2	5031	5005	5045	5046	5060	5059			
388-	COLA2	5032	5005	5046	5047	5061	5060			
389-	COLA2	5033	5005	5047	5048	5062	5061			
390-	COLA2	5034	5005	5048	5049	5063	5062			
391-	COLA2	5035	5005	5049	5050	5064	5063			
392-	COLA2	5036	5005	5050	5051	5065	5064			
393-	COLA2	5037	5005	5051	5052	5066	5065			
394-	COLA2	5038	5005	5052	5053	5067	5066			
395-	COLA2	5039	5005	5053	5054	5068	5067			
396-	COLA2	5040	5005	5054	5055	5069	5068			
397-	COLA2	5041	5005	5055	5056	5070	5069			
398-	COLA2	5042	5005	5056	5057	5071	5070			
399-	COLA2	5043	5005	5057	5058	5072	5071			
400-	COLA2	5044	5005	5058	5059	5073	5072			
401-	COLA2	5045	5005	5059	5060	5074	5073			
402-	COLA2	5046	5005	5060	5061	5075	5074			
403-	COLA2	5047	5005	5061	5062	5076	5075			
404-	COLA2	5048	5005	5062	5063	5077	5076			
405-	COLA2	5049	5005	5063	5064	5078	5077			
406-	COLA2	5050	5005	5064	5065	5079	5078			
407-	COLA2	5051	5005	5065	5066	5080	5079			
408-	COLA2	5052	5005	5066	5067	5081	5080			
409-	COLA2	5053	5005	5067	5068	5082	5081			
410-	COLA2	5054	5005	5068	5069	5083	5082			

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASTRAN 5/13/72

S O R T E D B U L K D A T A E C H O										
CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
401-	COLAD2	5046	5009	5069	5070	5083	5082			
402-	COLAD2	5046	5009	5070	5071	5084	5083			
403-	COLAD2	5047	5009	5071	5072	5085	5084			
404-	COLAD2	5048	5009	5072	5073	5086	5085			
405-	COLAD2	5049	5009	5073	5074	5087	5086			
406-	COLAD2	5050	5009	5074	5075	5088	5087			
407-	COLAD2	5051	5009	5075	5076	5089	5088			
408-	COLAD2	5052	5009	5076	5077	5090	5089			
409-	COLAD2	5053	5009	5077	5078	5091	5090			
410-	COLAD2	5054	5009	5078	5079	5092	5091			
411-	COLAD2	5055	5009	5079	5080	5093	5092			
412-	COLAD2	5056	5009	5080	5081	5094	5093			
413-	COLAD2	5057	5009	5081	5082	5095	5094			
414-	COLAD2	5058	5009	5082	5083	5096	5095			
415-	COLAD2	5059	5009	5083	5084	5097	5096			
416-	COLAD2	5060	5009	5084	5085	5098	5097			
417-	COLAD2	5061	5009	5085	5086	5099	5098			
418-	COLAD2	5062	5009	5086	5087	5100	5099			
419-	COLAD2	5063	5009	5087	5088	5101	5100			
420-	COLAD2	5064	5009	5088	5089	5102	5101			
421-	COLAD2	5065	5009	5089	5090	5103	5102			
422-	COLAD2	5066	5009	5090	5091	5104	5103			
423-	COLAD2	5067	5009	5091	5092	5105	5104			
424-	COLAD2	5068	5009	5092	5093	5106	5105			
425-	COLAD2	5069	5009	5093	5094	5107	5106			
426-	COLAD2	5070	5009	5094	5095	5108	5107			
427-	COLAD2	5071	5009	5095	5096	5109	5108			
428-	COLAD2	5072	5009	5096	5097	5110	5109			
429-	COLAD2	5073	5009	5097	5098	5111	5110			
430-	COLAD2	5074	5009	5098	5099	5112	5111			
431-	COLAD2	5075	5009	5099	5100	5113	5112			
432-	COLAD2	5076	5009	5100	5101	5114	5113			
433-	COLAD2	5077	5009	5101	5102	5115	5114			
434-	COLAD2	5078	5009	5102	5103	5116	5115			
435-	COLAD2	5079	5009	5103	5104	5117	5116			
436-	COLAD2	5080	5009	5104	5105	5118	5117			
437-	COLAD2	5081	5009	5105	5106	5119	5118			
438-	COLAD2	5082	5009	5106	5107	5120	5119			
439-	COLAD2	5083	5009	5107	5108	5121	5120			
440-	COLAD2	5084	5009	5108	5109	5122	5121			
441-	COLAD2	5085	5009	5109	5110	5123	5122			
442-	COLAD2	5086	5009	5110	5111	5124	5123			
443-	COLAD2	5087	5009	5111	5112	5125	5124			
444-	COLAD2	5088	5009	5112	5113	5126	5125			
445-	COLAD2	5089	5009	5113	5114	5127	5126			
446-	COLAD2	5090	5009	5114	5115	5128	5127			
447-	COLAD2	5091	5009	5115	5116	5129	5128			
448-	COLAD2	5092	5009	5116	5117	5130	5129			
449-	COLAD2	5093	5009	5117	5118	5131	5130			
450-	COLAD2	5094	5009	5118	5119	5132	5131			

Volume II

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
451-	COLAD2	5095	5073	5149	5150	5163	5162			
452-	COLAD2	5096	5073	5150	5151	5164	5163			
453-	COLAD2	5097	5073	5156	5157	5170	5169			
454-	COLAD2	5098	5073	5157	5158	5171	5170			
455-	COLAD2	5099	5073	5158	5159	5172	5171			
456-	COLAD2	5100	5073	5159	5160	5173	5172			
457-	COLAD2	5101	5073	5160	5161	5174	5173			
458-	COLAD2	5102	5073	5161	5162	5175	5174			
459-	COLAD2	5103	5073	5162	5163	5176	5175			
460-	COLAD2	5104	5073	5163	5164	5177	5176			
461-	COLAD2	5105	5073	5169	5170	5183	5182			
462-	COLAD2	5106	5073	5170	5171	5184	5183			
463-	COLAD2	5107	5073	5171	5172	5185	5184			
464-	COLAD2	5108	5073	5172	5173	5186	5185			
465-	COLAD2	5109	5073	5173	5174	5187	5186			
466-	COLAD2	5110	5073	5174	5175	5188	5187			
467-	COLAD2	5111	5073	5175	5176	5189	5188			
468-	COLAD2	5112	5073	5176	5177	5190	5189			
469-	COLAD2	5113	5113	5183	5196	5195	5192			
470-	COLAD2	5114	5113	5184	5197	5196	5183			
471-	COLAD2	5115	5113	5185	5198	5197	5184			
472-	COLAD2	5116	5113	5186	5199	5198	5185			
473-	COLAD2	5117	5113	5187	5200	5199	5186			
474-	COLAD2	5118	5113	5188	5201	5200	5187			
475-	COLAD2	5119	5113	5189	5202	5201	5188			
476-	COLAD2	5120	5113	5190	5203	5202	5189			
477-	COLAD2	8010	8010	8010	8011	8030	8030			
478-	COLAD2	8011	8010	8011	8012	8032	8031			
479-	COLAD2	8012	8010	8012	8013	8033	8032			
480-	COLAD2	8013	8010	8013	8014	8034	8033			
481-	COLAD2	8014	8010	8014	8015	8035	8034			
482-	COLAD2	8015	8010	8015	8016	8036	8035			
483-	COLAD2	8016	8010	8016	8017	8037	8036			
484-	COLAD2	8017	8010	8017	8018	8038	8037			
485-	COLAD2	8020	8010	8020	8031	8050	8050			
486-	COLAD2	8021	8010	8021	8032	8051	8051			
487-	COLAD2	8022	8010	8022	8033	8053	8052			
488-	COLAD2	8023	8010	8023	8034	8054	8053			
489-	COLAD2	8024	8010	8024	8035	8055	8054			
490-	COLAD2	8026	8010	8026	8036	8056	8055			
491-	COLAD2	8027	8010	8027	8037	8057	8056			
492-	COLAD2	8037	8010	8037	8038	8058	8057			
493-	COLAD2	8050	8010	8050	8051	8070	8070			
494-	COLAD2	8051	8010	8051	8052	8071	8071			
495-	COLAD2	8052	8010	8052	8053	8072	8072			
496-	COLAD2	8053	8010	8053	8054	8073	8073			
497-	COLAD2	8054	8010	8054	8055	8074	8074			
498-	COLAD2	8055	8010	8055	8056	8075	8075			
499-	COLAD2	8056	8010	8056	8057	8076	8076			
500-	COLAD2	8057	8010	8057	8058	8077	8077			

JULY 19. 1974 NASTRAN 5/13/72

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
501-	COUAD2 8070	8150	5117	5118	5119	8111	8110			
502-	COLAD2 8071	8150	5118	5119	5120	8112	8111			
503-	COUAD2 8072	8072	5119	5120	5121	8113	8112			
504-	COLAD2 8073	8072	5120	5121	5122	8114	8113			
505-	COUAD2 8074	8072	5121	5122	5123	8115	8114			
506-	COLAD2 8075	8072	5122	5123	5124	8116	8115			
507-	COUAD2 8076	8150	5123	5124	5125	8117	8116			
508-	COLAD2 8077	8150	5124	5125	5126	8118	8117			
509-	COUAD2 8078	8150	8110	8111	8112	8119	8118			
510-	COLAD2 8079	8150	8111	8112	8113	8131	8130			
511-	COUAD2 8080	8092	8112	8113	8114	8132	8131			
512-	COLAD2 8081	8092	8113	8114	8115	8133	8132			
513-	COUAD2 8082	8072	8114	8115	8116	8134	8133			
514-	COLAD2 8083	8092	8115	8116	8117	8135	8134			
515-	COUAD2 8084	8092	8116	8117	8118	8136	8135			
516-	COLAD2 8085	8150	8117	8118	8119	8137	8136			
517-	COUAD2 8086	8150	8118	8119	8120	8138	8137			
518-	COLAD2 8087	8150	8119	8120	8121	8139	8138			
519-	COUAD2 8088	8150	8120	8121	8122	8151	8150			
520-	COLAD2 8089	8150	8121	8122	8123	8152	8151			
521-	COUAD2 8090	8112	8122	8123	8124	8153	8152			
522-	COLAD2 8091	8072	8123	8124	8125	8154	8153			
523-	COUAD2 8092	8072	8124	8125	8126	8155	8154			
524-	COLAD2 8093	8112	8125	8126	8127	8156	8155			
525-	COUAD2 8094	8150	8126	8127	8128	8157	8156			
526-	COLAD2 8095	8150	8127	8128	8129	8158	8157			
527-	COUAD2 8096	8150	8128	8129	8130	8159	8158			
528-	COLAD2 8097	8150	8129	8130	8131	8159	8158			
529-	COUAD2 8098	8150	8130	8131	8132	8071	8070			
530-	COLAD2 8099	8150	8131	8132	8133	8072	8071			
531-	COUAD2 8100	8112	8132	8133	8134	8073	8072			
532-	COLAD2 8101	8072	8133	8134	8135	8074	8073			
533-	COUAD2 8102	8072	8134	8135	8136	8075	8074			
534-	COLAD2 8103	8112	8135	8136	8137	8076	8075			
535-	COUAD2 8104	8150	8136	8137	8138	8077	8076			
536-	COLAD2 8105	8150	8137	8138	8139	8078	8077			
537-	COUAD2 8106	8150	8138	8139	8140	8079	8078			
538-	COLAD2 8107	8150	8139	8140	8141	8079	8078			
539-	COUAD2 8108	8150	8140	8141	8142	8171	8170			
540-	COLAD2 8109	8150	8141	8142	8143	8172	8171			
541-	COUAD2 8110	8150	8142	8143	8144	8173	8172			
542-	COLAD2 8111	8150	8143	8144	8145	8174	8173			
543-	COUAD2 8112	8150	8144	8145	8146	8175	8174			
544-	COLAD2 8113	8150	8145	8146	8147	8176	8175			
545-	COUAD2 8114	8150	8146	8147	8148	8177	8176			
546-	COLAD2 8115	8150	8147	8148	8149	8178	8177			
547-	COUAD2 8116	8150	8148	8149	8150	8179	8178			
548-	COLAD2 8117	8150	8149	8150	8151	8191	8190			
549-	COUAD2 8118	8150	8150	8151	8152	8192	8191			
550-	COLAD2 8119	8150	8151	8152	8153	8193	8192			
551-	COUAD2 8120	8150	8152	8153	8154	8194	8193			
552-	COLAD2 8121	8150	8153	8154	8155	8195	8194			
553-	COUAD2 8122	8150	8154	8155	8156	8196	8195			
554-	COLAD2 8123	8150	8155	8156	8157					
555-	COUAD2 8124	8150	8156	8157	8158					
556-	COLAD2 8125	8150	8157	8158	8159					
557-	COUAD2 8126	8150	8158	8159	8160					
558-	COLAD2 8127	8150	8159	8160	8161					
559-	COUAD2 8128	8150	8160	8161	8162					
560-	COLAD2 8129	8150	8161	8162	8163					
561-	COUAD2 8130	8150	8162	8163	8164					
562-	COLAD2 8131	8150	8163	8164	8165					
563-	COUAD2 8132	8150	8164	8165	8166					
564-	COLAD2 8133	8150	8165	8166	8167					
565-	COUAD2 8134	8150	8166	8167	8168					
566-	COLAD2 8135	8150	8167	8168	8169					
567-	COUAD2 8136	8150	8168	8169	8170					
568-	COLAD2 8137	8150	8169	8170	8171					
569-	COUAD2 8138	8150	8170	8171	8172					
570-	COLAD2 8139	8150	8171	8172	8173					
571-	COUAD2 8140	8150	8172	8173	8174					
572-	COLAD2 8141	8150	8173	8174	8175					
573-	COUAD2 8142	8150	8174	8175	8176					
574-	COLAD2 8143	8150	8175	8176	8177					
575-	COUAD2 8144	8150	8176	8177	8178					
576-	COLAD2 8145	8150	8177	8178	8179					
577-	COUAD2 8146	8150	8178	8179	8180					
578-	COLAD2 8147	8150	8179	8180	8181					
579-	COUAD2 8148	8150	8180	8181	8182					
580-	COLAD2 8149	8150	8181	8182	8183					
581-	COUAD2 8150	8150	8182	8183	8184					
582-	COLAD2 8151	8150	8183	8184	8185					
583-	COUAD2 8152	8150	8184	8185	8186					
584-	COLAD2 8153	8150	8185	8186	8187					
585-	COUAD2 8154	8150	8186	8187	8188					
586-	COLAD2 8155	8150	8187	8188	8189					
587-	COUAD2 8156	8150	8188	8189	8190					
588-	COLAD2 8157	8150	8189	8190	8191					
589-	COUAD2 8158	8150	8190	8191	8192					
590-	COLAD2 8159	8150	8191	8192	8193					
591-	COUAD2 8160	8150	8192	8193	8194					
592-	COLAD2 8161	8150	8193	8194	8195					
593-	COUAD2 8162	8150	8194	8195	8196					
594-	COLAD2 8163	8150	8195	8196	8197					
595-	COUAD2 8164	8150	8196	8197	8198					
596-	COLAD2 8165	8150	8197	8198	8199					
597-	COUAD2 8166	8150	8198	8199	8200					
598-	COLAD2 8167	8150	8199	8200						
599-	COUAD2 8168	8150								
600-	COLAD2 8169	8150								

ORIGINAL PAGE IS
OF POOR QUALITY

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	0	1	2	3	4	5	6	7	8	9
551-	COUAD2	8176	8151	8176	8177	8197	8196			
552-	COLAD2	8177	8151	8177	8178	8198	8197			
553-	COUAD2	8190	8190	8190	8191	8211	8210			
554-	COUAD2	8191	8190	8191	8192	8212	8211			
555-	COUAD2	8192	8190	8192	8193	8213	8212			
556-	COUAD2	8193	8190	8193	8194	8214	8213			
557-	COUAD2	8194	8190	8194	8195	8215	8214			
558-	COUAD2	8195	8190	8195	8196	8216	8215			
559-	COLAD2	8196	8151	8196	8197	8217	8216			
560-	COLAD2	8197	8151	8197	8198	8218	8217			
561-	COUAD2	8210	8190	8210	8211	8231	8230			
562-	COLAD2	8211	8190	8211	8212	8232	8231			
563-	COLAD2	8212	8190	8212	8213	8233	8232			
564-	COLAD2	8213	8190	8213	8214	8234	8233			
565-	COLAD2	8214	8190	8214	8215	8235	8234			
566-	COLAD2	8215	8190	8215	8216	8236	8235			
567-	COLAD2	8216	8190	8216	8217	8237	8236			
568-	COLAD2	8217	8190	8217	8218	8238	8237			
569-	COUAD2	8230	8190	8230	8231	8251	8250			
570-	COLAD2	8231	8190	8231	8232	8252	8251			
571-	COLAD2	8232	8190	8232	8233	8253	8252			
572-	COUAD2	8233	8190	8233	8234	8254	8253			
573-	COUAD2	8234	8190	8234	8235	8255	8254			
574-	COLAD2	8235	8190	8235	8236	8256	8255			
575-	COLAD2	8236	8190	8236	8237	8257	8256			
576-	COLAD2	8237	8190	8237	8238	8258	8257			
577-	COLAD2	8250	8151	8250	8251	8271	8270			
578-	COUAD2	8251	8011	8251	8252	8272	8271			
579-	COLAD2	8252	8190	8252	8253	8273	8272			
580-	COLAD2	8253	8190	8253	8254	8274	8273			
581-	COUAD2	8254	8190	8254	8255	8275	8274			
582-	COLAD2	8255	8190	8255	8256	8276	8275			
583-	COLAD2	8256	8190	8256	8257	8277	8276			
584-	COLAD2	8257	8190	8257	8258	8278	8277			
585-	COLAD2	8270	8151	8270	8271	8291	8290			
586-	COLAD2	8271	8151	8271	8272	8292	8291			
587-	COLAD2	8272	8190	8272	8273	8293	8292			
588-	COUAD2	8273	8190	8273	8274	8294	8293			
589-	COUAD2	8274	8190	8274	8275	8295	8294			
590-	COUAD2	8275	8190	8275	8276	8296	8295			
591-	COUAD2	8276	8190	8276	8277	8297	8296			
592-	COUAD2	8277	8190	8277	8278	8298	8297			
593-	COLAD2	8290	8151	8290	8291	8311	8310			
594-	COLAD2	8291	8151	8291	8292	8312	8311			
595-	COLAD2	8292	8230	8292	8293	8313	8312			
596-	COLAD2	8293	8190	8293	8294	8314	8313			
597-	COUAD2	8294	8190	8294	8295	8315	8314			
598-	COLAD2	8295	8190	8295	8296	8316	8315			
599-	COLAD2	8296	8190	8296	8297	8317	8316			
600-	COUAD2	8297	8190	8297	8298	8318	8317			

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EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
601-	COUAD2	8310	8151	8310	8381	8332	8330			
602-	COUAD2	8311	8151	8311	8382	8333	8332			
603-	COUAD2	8312	8151	8312	8383	8335	8333			
604-	COUAD2	8312	8190	8313	8384	8336	8335			
605-	COUAD2	8314	8190	8314	8385	8337	8336			
606-	COUAD2	8315	8190	8315	8386	8338	8337			
607-	COUAD2	8316	8190	8316	8387	8339	8338			
608-	COUAD2	8317	8190	8317	8388	8340	8339			
609-	COUAD2	8320	8330	8330	8382	8371	8370			
610-	COUAD2	8331	8011	8332	8383	8372	8371			
611-	COUAD2	8332	8151	8333	8385	8373	8372			
612-	COUAD2	8332	8011	8335	8386	8374	8373			
613-	COUAD2	8324	8011	8336	8387	8375	8374			
614-	COUAD2	8335	8011	8337	8388	8376	8375			
615-	COUAD2	8326	8011	8338	8389	8377	8376			
616-	COUAD2	8327	8011	8339	8390	8378	8377			
617-	COUAD2	8350	8010	8370	8371	8351	8350			
618-	COUAD2	8351	8010	8371	8372	8352	8351			
619-	COUAD2	8352	8010	8372	8373	8353	8352			
620-	COUAD2	8353	8010	8373	8374	8354	8353			
621-	COUAD2	8354	8010	8374	8375	8355	8354			
622-	COUAD2	8355	8010	8375	8376	8356	8355			
623-	COUAD2	8356	8010	8376	8377	8357	8356			
624-	COUAD2	8357	8010	8377	8378	8358	8357			
625-	COUAD2	8376	8011	8370	8371	8391	8390			
626-	COUAD2	8371	8011	8371	8372	8392	8391			
627-	COUAD2	8372	8011	8372	8373	8393	8392			
628-	COUAD2	8373	8011	8373	8374	8394	8393			
629-	COUAD2	8374	8011	8374	8375	8395	8394			
630-	COUAD2	8375	8011	8375	8376	8396	8395			
631-	COUAD2	8376	8011	8376	8377	8397	8396			
632-	COUAD2	8377	8011	8377	8378	8398	8397			
633-	COUAD2	8390	8011	8393	8391	8411	8410			
634-	COUAD2	8391	8011	8391	8392	8412	8411			
635-	COUAD2	8392	8011	8392	8393	8413	8412			
636-	COUAD2	8392	8011	8393	8394	8414	8413			
637-	COUAD2	8394	8011	8394	8395	8415	8414			
638-	COUAD2	8395	8011	8395	8396	8416	8415			
639-	COUAD2	8396	8011	8396	8397	8417	8416			
640-	COUAD2	8397	8011	8397	8398	8418	8417			
641-	COUAD2	8410	8011	8413	8411	8431	8430			
642-	COUAD2	8411	8011	8411	8412	8432	8431			
643-	COUAD2	8412	8011	8412	8413	8433	8432			
644-	COUAD2	8413	8011	8413	8414	8434	8433			
645-	COUAD2	8414	8011	8414	8415	8435	8434			
646-	COUAD2	8415	8011	8415	8416	8436	8435			
647-	COUAD2	8416	8011	8416	8417	8437	8436			
648-	COUAD2	8417	8011	8417	8418	8438	8437			
649-	CTPIA2	5001	5095	5001	5014	5013	.0			
650-	CTPIA2	5002	5095	5001	5015	5014	.0			

SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
CTRIA2	5003	5095	5001	5016	5015	.0					
CTRIA2	5004	5095	5001	5017	5016	.0					
CTRIA2	5005	5095	5001	5018	5017	.0					
CTRIA2	5006	5095	5001	5019	5019	.0					
CTRIA2	5007	5095	5001	5020	5019	.0					
CTRIA2	5008	5095	5001	5021	5020	.0					
CTRIA2	5121	5113	5195	5196	5204	.0					
CTRIA2	5122	5113	5196	5197	5204	.0					
CTRIA2	5123	5113	5197	5198	5204	.0					
CTRIA2	5124	5113	5198	5199	5204	.0					
CTRIA2	5125	5113	5199	5200	5204	.0					
CTRIA2	5126	5113	5200	5201	5204	.0					
CTRIA2	5127	5113	5201	5202	5204	.0					
CTRIA2	5128	5113	5202	5203	5204	.0					
CTRIA2	8000	8000	8001	8010	8011						
CTRIA2	8001	8000	8001	8011	8012						
CTRIA2	8002	8000	8001	8012	8013						
CTRIA2	8003	8000	8001	8013	8014						
CTRIA2	8004	8000	8001	8014	8015						
CTRIA2	8005	8000	8001	8015	8016						
CTRIA2	8006	8000	8001	8016	8017						
CTRIA2	8007	8000	8001	8017	8018						
CTRIA2	8430	8001	8440	8430	8431						
CTRIA2	8431	8001	8440	8431	8432						
CTRIA2	8432	8001	8440	8432	8433						
CTRIA2	8433	8001	8440	8433	8434						
CTRIA2	8434	8001	8440	8434	8435						
CTRIA2	8435	8001	8440	8435	8436						
CTRIA2	8436	8001	8440	8436	8437						
CTRIA2	8437	8001	8440	8437	8438						
DM1	MFLC	0	1	1	2						
DM1	MFLD	17	17	17	17						
*AMF	1	-2.00180254E-07	9.75884973E-08	-5.13396132E-08	5.99750936E-01	*AMF	0				
*AMF	2	-1.61232849E-07	1.17548433E-07	-5.61975803E-08	3.88951867E-01	*AMF	1				
*AMF	3	-1.11131815E-07	7.33102752E-08	-4.70881218E-08	2.73521832E-01	*AMF	2				
*AMF	4	-1.42914928E-07	7.4021724E-08	-5.23736681E-08	2.81050696E-01	*AMF	3				
*AMF	5	-1.33812250E-07	6.31305852E-08	-4.99470395E-08	2.48964071E-01	*AMF	4				
*AMF	6	-8.99059387E-08	5.90598255E-08	-3.76073604E-08	1.78872287E-01	*AMF	5				
*AMF	7	-7.65954677E-08	5.57664528E-08	-3.03963326E-08	1.70159863E-01	*AMF	6				
*AMF	8	-6.77578665E-08	4.97084257E-08	-2.04433224E-08	1.25779012E-01	*AMF	7				
*AMF	9	-3.55034476E-08	2.57716584E-08	-1.42092311E-08	8.02373290E-02	*AMF	8				
*AMF	10	-1.73071726E-08	1.70259380E-08	-1.37417636E-08	4.37715043E-02	*AMF	9				
*AMF	11	-3.54224716E-09	4.92929786E-09	-3.41605655E-09	1.36823319E-02	*AMF	10				
*AMF	12	-2.00180254E-07	-1.03771864E-07	-5.79904719E-07	-2.00180254E-07	*AMF	11				
*AMF	13	-2.00180254E-07	-1.03771864E-07	-5.79904719E-07	-1.69359168E-07	*AMF	12				
*AMF	14	-5.85623377E-02	-5.06920680E-08	-1.63680204E-07	-1.23502957E-07	*AMF	13				
*AMF	15	-2.36592293E-02	-2.27564660E-08	-6.31134753E-08	-1.32212961E-07	*AMF	14				
*AMF	16	-1.45253607E-02	-1.52535863E-08	-4.0075067E-08	-1.17985051E-07	*AMF	15				
*AMF	17	-8.21207836E-01	-8.59573746E-09	-2.34883861E-08	-8.54429913E-08	*AMF	16				
*AMF	18	-4.55071777E-03	-5.09775331E-09	-1.25631230E-08	-8.16531834E-08	*AMF	17				
*AMF	19	-4.55071777E-03	-5.09775331E-09	-1.25631230E-08	-8.16531834E-08	*AMF	18				
*AMF	20	-4.55071777E-03	-5.09775331E-09	-1.25631230E-08	-8.16531834E-08	*AMF	19				

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
*AMF	19	3.43131484E-03	-3.91749921E-09	-9.16277187E-09	-6.09181257E-08	*AMF	20			
*AMF	20	1.75850443E-03	-2.16631663E-09	-4.90957675E-09	-3.88952976E-08	*AMF	21			
*AMF	21	8.14836953E-04	-9.64622160E-10	-2.2985541E-09	-3.37181546E-08	*AMF	22			
*AMF	22	2.62829017E-04	-2.56703398E-10	-6.14105655E-10	-6.67433397E-09	*AMF	23			
*AMF	23	2.2612715E-05	-2.24502500E-11	-5.43919244E-11		*AMF	24			
DMI	19						25			
*AMF	25	-1.02771866E-07	1.55854344E-01	-1.15481214E-07	9.95563596E-08	*AMF	26			
*AMF	26	-4.56361242E-08	2.67839059E-02	-3.43343309E-08	7.41083568E-08	*AMF	27			
*AMF	27	-2.14284306E-08	7.26161525E-03	-1.07126645E-08	7.69169901E-08	*AMF	28			
*AMF	28	-1.52052380E-08	3.14712757E-03	-5.45826850E-09	6.90058073E-08	*AMF	29			
*AMF	29	-6.57807432E-09	1.14565925E-03	-2.03802131E-09	4.98198318E-08	*AMF	30			
*AMF	30	-5.08254061E-09	4.90984995E-04	-8.98737307E-10	4.73786343E-08	*AMF	31			
*AMF	31	-3.91396071E-09	2.94663245E-04	-5.26582111E-10	3.50451401E-08	*AMF	32			
*AMF	32	-2.05156669E-09	1.02667414E-04	-1.93383767E-10	2.23691039E-08	*AMF	33			
*AMF	33	-5.66246336E-10	3.3310600E-05	-6.36112968E-11	1.36033513E-09	*AMF	34			
*AMF	34	-2.18831184E-10	5.09826543E-06	-6.61263696E-12	3.81682952E-09	*AMF	35			
*AMF	35	-2.75938994E-11	1.04759924E-07	-1.31680962E-13		*AMF	36			
DMI	20						37			
*AMF	37	-5.75954719E-07	-1.15481214E-07	1.19105399E-01	-6.44834586E-08	*AMF	38			
*AMF	38	-1.63247067E-07	-3.30284564E-08	1.17744915E-02	-4.84915432E-08	*AMF	39			
*AMF	39	-6.52957510E-08	-1.07332170E-08	2.18443735E-03	-5.07903053E-08	*AMF	40			
*AMF	40	-4.05190513E-08	-5.12167730E-09	6.56526769E-04	-4.52155534E-08	*AMF	41			
*AMF	41	-2.24923546E-08	-2.00829178E-09	1.54654642E-04	-3.25102754E-08	*AMF	42			
*AMF	42	-1.24565617E-08	-8.42239393E-10	5.15687861E-05	-3.09430703E-08	*AMF	43			
*AMF	43	-9.35070688E-09	-5.40196554E-10	2.42911592E-05	-2.28782575E-08	*AMF	44			
*AMF	44	-4.81293933E-09	-1.93700625E-10	5.27083921E-06	-1.45959262E-08	*AMF	45			
*AMF	45	-2.22567055E-09	-6.39418379E-11	1.05413618E-06	-8.87232687E-09	*AMF	46			
*AMF	46	-7.22054860E-10	-9.95774557E-12	4.73843684E-08	-2.48904386E-09	*AMF	47			
*AMF	47	-6.16866763E-11	-2.07032958E-13	1.70598827E-10		*AMF	48			
DMI	21						49			
*AMF	49	-1.69359168E-07	9.95563596E-05	-6.44834586E-08	7.97734439E-01	*AMF	50			
*AMF	50	-3.25585518E-07	2.25224085E-07	-7.30288010E-08	5.09292722E-01	*AMF	51			
*AMF	51	-2.11524004E-07	1.32427659E-07	-8.07746119E-08	5.10307133E-01	*AMF	52			
*AMF	52	-2.98947580E-07	1.32769131E-07	-9.30457418E-08	4.48567447E-01	*AMF	53			
*AMF	53	-2.40874726E-07	1.13167744E-07	-7.32852072E-08	3.21601212E-01	*AMF	54			
*AMF	54	-1.61540640E-07	1.05943684E-07	-6.74574494E-08	3.05598824E-01	*AMF	55			
*AMF	55	-1.39202154E-07	1.00007298E-07	-5.45148637E-08	2.25556569E-01	*AMF	56			
*AMF	56	-1.21525581E-07	8.73735825E-08	-3.66608752E-08	1.43884770E-01	*AMF	57			
*AMF	57	-7.08240577E-08	4.61987852E-08	-2.54773575E-08	8.74247551E-02	*AMF	58			
*AMF	58	-3.16185847E-08	3.06247543E-08	-2.46325054E-08	2.45257393E-02	*AMF	59			
*AMF	59	-7.06620540E-09	8.43577100E-09	-6.12338874E-09		*AMF	60			
DMI	22						61			
*AMF	61	-5.85623377E-02	-4.56361242E-08	-1.63347067E-07	-3.25585518E-07	*AMF	62			
*AMF	62	1.78371847E-01	-1.03358957E-07	-5.03851879E-07	-2.20105960E-07	*AMF	63			
*AMF	63	6.26575351E-02	-4.77757958E-08	-1.68840927E-07	-2.34563913E-07	*AMF	64			
*AMF	64	3.76204625E-02	-3.10080852E-08	-1.03370451E-07	-2.08457266E-07	*AMF	65			
*AMF	65	2.03292556E-02	-1.93360066E-08	-5.82697720E-08	-1.51141649E-07	*AMF	66			
*AMF	66	1.11925751E-02	-1.17161640E-08	-3.09392055E-08	-1.44539399E-07	*AMF	67			
*AMF	67	8.41044262E-03	-9.11251874E-09	-2.24774155E-08	-1.08110101E-07	*AMF	68			
*AMF	68	4.29686159E-03	-5.12402210E-09	-1.20000494E-08	-6.89204285E-08	*AMF	69			

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
751-	*AMF	69	1.99309597E-03	-2.29887864E-09	-5.441702220E-09	-4.21210480E-08	*AMF	70			
752-	*AMF	70	6.43279636E-04	-6.17527363E-10	-1.49737978E-09	-1.18663159E-08	*AMF	71			
753-	*AMF	71	5.51226375E-05	-5.45624934E-11	-1.32615308E-10						
753-	DMI		*MFLC	23	17						
753-	*AMF	73	-5.66929680E-08	2.67839059E-02	-3.30284564E-08	1.17549632E-07	*AMF	73			
753-	*AMF	74	-1.03358957E-07	1.26462877E-01	-9.23723746E-08	2.25224085E-07	*AMF	74			
755-	*AMF	75	-4.75810076E-08	3.11805420E-02	-3.23957288E-08	1.60579792E-07	*AMF	75			
757-	*AMF	76	-2.56355336E-08	1.29312761E-02	-1.82831705E-08	1.64223138E-07	*AMF	76			
759-	*AMF	77	-2.17280309E-08	4.62135300E-03	-7.21653849E-09	1.07034282E-07	*AMF	77			
759-	*AMF	78	-1.23987206E-08	1.96200213E-03	-3.26668992E-09	1.07034282E-07	*AMF	78			
759-	*AMF	79	-5.64365295E-09	1.17161420E-03	-1.94150229E-09	1.01649164E-07	*AMF	79			
761-	*AMF	80	-5.10682003E-09	4.06190054E-04	-7.32024338E-10	7.51562652E-08	*AMF	80			
762-	*AMF	81	-2.42266025E-09	1.31603214E-04	-2.44512632E-10	4.79725450E-08	*AMF	81			
763-	*AMF	82	-8.6393574E-10	2.06888990E-05	-2.58035399E-11	2.91739148E-08	*AMF	82			
765-	*AMF	83	-7.02365144E-11	4.13635940E-07	-5.17185253E-13	8.18649326E-09	*AMF	83			
765-	DMI		*MFLC	24	17						
767-	*AMF	85	-1.63680284E-07	-3.43343309E-08	1.17744915E-02	-5.61975853E-08	*AMF	85			
767-	*AMF	86	-5.02851879E-07	-9.23723746E-08	9.48956609E-02	-7.80268910E-08	*AMF	86			
769-	*AMF	87	-1.75656908E-07	-3.40159509E-08	1.71037801E-02	-7.13311579E-08	*AMF	87			
769-	*AMF	88	-1.62452635E-07	-1.74023143E-08	5.05789360E-03	-7.87979398E-08	*AMF	88			
770-	*AMF	89	-5.57406850E-09	-7.28713800E-09	1.21257664E-03	-7.09887331E-08	*AMF	89			
771-	*AMF	90	-3.06344857E-08	-3.25635341E-09	3.91629292E-04	-5.10822351E-08	*AMF	90			
772-	*AMF	91	-2.36042687E-08	-2.02448969E-09	1.83045637E-04	-4.86639671E-08	*AMF	91			
773-	*AMF	92	-1.17552545E-08	-7.43055617E-10	3.97126860E-05	-3.59786547E-08	*AMF	92			
774-	*AMF	93	-5.45288970E-09	-2.48639597E-10	7.95273809E-06	-2.29503812E-08	*AMF	93			
775-	*AMF	94	-1.75563132E-09	-3.94244359E-11	3.57091494E-07	-1.39472078E-08	*AMF	94			
775-	*AMF	95	-1.50809615E-10	-8.22092665E-13	1.28512312E-09	-3.91272437E-09	*AMF	95			
777-	DMI		*MFLC	25	17						
779-	*AMF	97	-1.22502957E-07	7.41083568E-08	-4.84915432E-08	2.73521602E-01	*AMF	97			
779-	*AMF	98	-2.20105960E-07	1.60579702E-07	-7.13311579E-08	5.09292722E-01	*AMF	98			
780-	*AMF	99	-2.13148456E-07	1.35436210E-07	-6.60641604E-08	5.65225065E-01	*AMF	99			
782-	*AMF	100	-2.53051326E-07	1.30967749E-07	-8.81552182E-08	5.19230435E-01	*AMF	100			
782-	*AMF	101	-2.34189484E-07	1.11074079E-07	-7.13941948E-08	4.45596635E-01	*AMF	101			
783-	*AMF	102	-1.56607744E-07	1.04661934E-07	-6.61415243E-08	3.17531884E-01	*AMF	102			
784-	*AMF	103	-1.34068498E-07	9.81360131E-08	-5.34552989E-08	3.00828616E-01	*AMF	103			
785-	*AMF	104	-1.16340520E-07	8.56591711E-08	-3.59562691E-08	2.21598492E-01	*AMF	104			
785-	*AMF	105	-6.50151865E-08	4.52832261E-08	-2.43822563E-08	1.41137719E-01	*AMF	105			
787-	*AMF	106	-3.02533927E-08	3.00088097E-08	-2.41408102E-08	8.56810212E-01	*AMF	106			
789-	*AMF	107	-6.91245106E-09	8.65914629E-09	-6.00098460E-09	2.40357630E-02	*AMF	107			
790-	DMI		*MFLC	26	17						
791-	*AMF	109	2.36592293E-02	-2.14284306E-08	-6.52957510E-08	-1.14348154E-07	*AMF	109			
791-	*AMF	110	6.26575351E-02	-4.79810076E-08	-1.75656908E-07	-2.11528004E-07	*AMF	110			
792-	*AMF	111	1.06022775E-01	-5.49685524E-08	-2.9202824E-07	-2.13148496E-07	*AMF	111			
793-	*AMF	112	5.45338348E-02	-3.81453624E-08	-1.53651740E-07	-2.18730520E-07	*AMF	112			
793-	*AMF	113	2.80268490E-02	-2.32475053E-08	-8.09641847E-08	-1.91377694E-07	*AMF	113			
795-	*AMF	114	1.51125118E-02	-1.44351446E-08	-4.19710844E-08	-1.38785491E-07	*AMF	114			
795-	*AMF	115	1.12371743E-02	-1.13713661E-08	-3.01211394E-08	-1.32762352E-07	*AMF	115			
797-	*AMF	116	5.66598258E-03	-6.51430090E-09	-1.50094888E-08	-9.96423069E-08	*AMF	116			
799-	*AMF	117	2.62535032E-03	-2.94587554E-09	-7.18250519E-09	-6.34501589E-09	*AMF	117			
799-	*AMF	118	8.47022049E-04	-7.99805555E-10	-1.97180827E-09	-3.84199982E-08	*AMF	118			
800-						-1.09618661E-08	*AMF	119			

EXTERNAL TANK NO. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
901-	*AMF 119	7.25853024E-05	-7.15590642E-11	-1.74597475E-10						*AMF 120
902-	DMI	*MFLC	27	17						
903-	*AMF 121	-2.25564665E-08	7.26161525E-03	-1.07332170E-08						*AMF 121
904-	*AMF 122	-4.77757958E-08	3.11805420E-02	-3.40159509E-08						*AMF 122
905-	*AMF 123	-5.45685524E-08	7.53685100E-02	-5.32369141E-08						*AMF 123
906-	*AMF 124	-4.19740620E-08	2.7735537E-02	-3.1468039E-08						*AMF 124
907-	*AMF 125	-2.64036663E-08	9.37557220E-03	-1.27796547E-08						*AMF 125
908-	*AMF 126	-1.51349582E-08	3.3659894E-03	-5.85910342E-09						*AMF 126
909-	*AMF 127	-1.19050405E-08	2.27076630E-03	-3.50264791E-09						*AMF 127
910-	*AMF 128	-6.38251052E-09	7.75044794E-04	-1.34334977E-09						*AMF 128
911-	*AMF 129	-3.05060886E-09	2.49649398E-04	-4.53194815E-10						*AMF 129
912-	*AMF 130	-1.02278830E-09	3.81000718E-05	-4.84530492E-11						*AMF 130
913-	*AMF 131	-5.4990805E-11	7.84471183E-07	-9.77044834E-13						*AMF 131
914-	DMI	*MFLD	28	17						
915-	*AMF 133	-6.21134753E-08	-1.07126645E-08	2.18403735E-03						*AMF 133
916-	*AMF 134	-1.68840927E-07	-3.23957288E-08	1.71037801E-02						*AMF 134
917-	*AMF 135	-2.95202824E-07	-5.32368941E-08	5.76457609E-02						*AMF 135
918-	*AMF 136	-1.47217804E-07	-2.82740444E-08	1.5842824E-02						*AMF 136
919-	*AMF 137	-7.46355795E-08	-1.26216411E-08	3.65627185E-03						*AMF 137
920-	*AMF 138	-4.60835098E-08	-5.68673642E-09	1.14323036E-03						*AMF 138
921-	*AMF 139	-2.57603044E-08	-3.5725387E-09	5.22312323E-04						*AMF 139
922-	*AMF 140	-1.50757273E-08	-1.33801096E-09	1.10244771E-04						*AMF 140
923-	*AMF 141	-6.56735465E-09	-4.52803794E-10	2.19494104E-05						*AMF 141
924-	*AMF 142	-2.24361152E-09	-7.31565780E-11	9.84823419E-07						*AMF 142
925-	*AMF 143	-1.92265216E-10	-1.53274268E-12	3.54323699E-09						*AMF 143
926-	DMI	*MFLC	29	17						
927-	*AMF 145	-1.32212961E-07	7.67169501E-08	-5.07903053E-08						*AMF 145
928-	*AMF 146	-2.34563913E-07	1.64223139E-07	-7.87979309E-08						*AMF 146
929-	*AMF 147	-2.1873052E-07	1.32213131E-07	-8.32104661E-08						*AMF 147
930-	*AMF 148	-3.48593119E-07	1.56989756E-07	-1.04577964E-07						*AMF 148
931-	*AMF 149	-2.04660091E-07	1.37462393E-07	-8.92420844E-08						*AMF 149
932-	*AMF 150	-2.01194155E-07	1.31052047E-07	-8.40475423E-08						*AMF 150
933-	*AMF 151	-1.76981991E-07	1.24891919E-07	-6.76871837E-08						*AMF 151
934-	*AMF 152	-1.50363443E-07	1.08462018E-07	-4.56654535E-08						*AMF 152
935-	*AMF 153	-8.75492105E-08	5.71352175E-08	-3.17108086E-08						*AMF 153
936-	*AMF 154	-3.63290164E-08	3.80254939E-08	-3.60111316E-08						*AMF 154
937-	*AMF 155	-6.76195114E-09	1.39790825E-08	-7.60914531E-09						*AMF 155
938-	DMI	*MFLC	30	17						
939-	*AMF 157	1.45253607E-02	-1.52052380E-09	-4.09190513E-08						*AMF 157
940-	*AMF 158	3.76204625E-02	-1.56355366E-08	-1.03452635E-07						*AMF 158
941-	*AMF 159	5.49330346E-02	-4.19746620E-08	-1.47217804E-07						*AMF 159
942-	*AMF 160	1.19102372E-01	-6.43493081E-08	-3.11340383E-07						*AMF 160
943-	*AMF 161	5.31555573E-02	-3.79788878E-08	-1.53130964E-07						*AMF 161
944-	*AMF 162	2.71584786E-02	-2.36728530E-08	-7.54588427E-08						*AMF 162
945-	*AMF 163	1.57121687E-02	-1.86825879E-08	-5.28093016E-08						*AMF 163
946-	*AMF 164	5.78237301E-03	-1.07998417E-08	-2.73436279E-08						*AMF 164
947-	*AMF 165	4.48845695E-03	-4.30222759E-09	-1.22592401E-08						*AMF 165
948-	*AMF 166	1.44083472E-03	-1.34101064E-09	-3.35408346E-09						*AMF 166
949-	*AMF 167	1.23442064E-04	-1.21294905E-10	-2.96931186E-10						*AMF 167
950-	DMI	*MFLD	31	17						
										*AMF 168
										*AMF 169

Volume II

SORTED BULK DATA ECHO

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CARD
COUNT
891- *AMF 169 -1.52536861E-08 3.14712757E-03 -5.512167730E-09 1.32755133E-07 *AMF 170
892- *AMF 170 -3.30090852E-08 1.29312761E-02 -1.74023143E-08 1.30967749E-07 *AMF 171
893- *AMF 171 -3.81453624E-08 2.77355537E-02 -2.82740444E-08 1.56989756E-07 *AMF 172
894- *AMF 172 -6.42493081E-09 8.29327703E-02 -6.82440486E-08 1.47019932E-07 *AMF 173
895- *AMF 173 -4.11083825E-08 2.52317376E-02 -2.80391123E-08 1.38299503E-07 *AMF 174
896- *AMF 174 -2.34128770E-08 9.78355110E-03 -1.29248257E-08 1.01640012E-07 *AMF 175
897- *AMF 175 -1.85305655E-08 5.54407388E-03 -7.73224329E-09 7.49392370E-08 *AMF 176
898- *AMF 176 -1.01170201E-08 1.83082954E-03 -3.01815284E-09 4.78611746E-08 *AMF 177
899- *AMF 177 -4.88073226E-09 5.84049150E-04 -1.02954945E-09 2.91214981E-08 *AMF 178
900- *AMF 178 -1.68324887E-09 8.90953816E-05 -1.11939125E-10 8.17850676E-09 *AMF 179
901- *AMF 179 -1.48873192E-10 1.83435077E-06 -2.27803540E-12 *AMF 180
902- DMI *MFLC 32 17 -5.23736681E-08 *AMF 181
903- *AMF 181 -4.08075067E-08 -5.45826850E-09 6.56526769E-04 -9.30457418E-09 *AMF 182
904- *AMF 182 -1.03370951E-07 -1.82831705E-08 5.05789369E-03 -8.81552182E-08 *AMF 183
905- *AMF 183 -1.53651740E-07 -3.14680939E-04 1.58428624E-02 -1.04577964E-07 *AMF 184
906- *AMF 184 -3.31349383E-07 -6.32440486E-08 6.28658533E-02 -1.03103105E-07 *AMF 185
907- *AMF 185 -1.42351397E-07 -3.07633899E-08 1.36570856E-02 -7.44389581E-08 *AMF 186
908- *AMF 186 -7.43070814E-09 -1.35482843E-08 4.03625518E-03 -7.13258714E-08 *AMF 187
909- *AMF 187 -5.37014238E-08 -8.52006821E-09 1.76754339E-03 -5.26847746E-08 *AMF 188
910- *AMF 188 -2.66723461E-08 -3.221155147E-09 3.53509095E-04 -2.35693358E-08 *AMF 189
911- *AMF 189 -1.22400863E-08 -1.09358944E-09 6.97666401E-05 -3.03677040E-08 *AMF 190
912- *AMF 190 -2.92647337E-09 -1.79705834E-10 3.12051543E-06 -5.71368375E-09 *AMF 191
913- *AMF 191 -3.36358905E-10 -3.78140574E-12 1.12147021E-08 *AMF 192
914- DMI *MFLC 33 17 2.48964071E-01 *AMF 193
915- *AMF 193 -1.17850502E-07 6.970059073E-08 -4.52156534E-08 4.48567867E-01 *AMF 194
916- *AMF 194 -2.08457266E-07 1.47931871E-07 -7.09897331E-08 4.45596635E-01 *AMF 195
917- *AMF 195 -1.51377654E-07 1.21071764E-07 -7.67071811E-08 5.84424794E-01 *AMF 196
918- *AMF 196 -2.87585351E-07 1.47019932E-07 -1.03103105E-07 6.98346550E-01 *AMF 197
919- *AMF 197 -2.37361712E-07 1.47279117E-07 -8.82146765E-08 4.56478119E-01 *AMF 198
920- *AMF 198 -2.12430837E-07 1.41393400E-07 -8.4068143E-08 4.17865515E-01 *AMF 199
921- *AMF 199 -1.7658257E-07 1.32153787E-07 -7.17506623E-04 3.01081624E-01 *AMF 200
922- *AMF 200 -1.57442620E-07 1.15156979E-07 -4.84205174E-08 1.90390766E-01 *AMF 201
923- *AMF 201 -9.16047611E-08 6.37019501E-08 -3.36156170E-08 1.14975631E-01 *AMF 202
924- *AMF 202 -4.01236448E-04 4.02103610E-04 -3.23109703E-08 3.22471745E-02 *AMF 203
925- *AMF 203 -9.23344956E-09 1.16161907E-04 -8.05110545E-09 *AMF 204
926- DMI *MFLC 34 17 -1.33812250E-07 *AMF 205
927- *AMF 205 8.21207836E-03 -8.97803432E-02 -2.24923546E-08 -2.40874726E-07 *AMF 206
928- *AMF 206 2.03292556E-02 -2.17280309E-03 -5.57406950E-08 -2.34189486E-07 *AMF 207
929- *AMF 207 2.80268490E-02 -2.6403683E-03 -7.46355795E-08 -3.04660091E-07 *AMF 208
930- *AMF 208 5.31595573E-02 -4.11083825E-08 -1.46351397E-07 -3.37361712E-07 *AMF 209
931- *AMF 209 1.08508527E-01 -5.72796139E-03 -3.16097612E-07 -2.31650419E-07 *AMF 210
932- *AMF 210 4.76565324E-02 -2.43796920E-03 -1.33114304E-07 -2.16980254E-07 *AMF 211
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935- *AMF 213 6.7408395E-03 -7.05274061E-09 -1.84341923E-08 -6.25984740E-08 *AMF 214
936- *AMF 214 2.14507895E-03 -1.95156140E-09 -5.00332575E-09 -1.77236288E-08 *AMF 215
937- *AMF 215 1.84029137E-04 -1.79821602E-10 -4.42669679E-10 *AMF 216
938- DMI *MFLC 35 17 6.31305952E-03 *AMF 217
939- *AMF 217 -8.55573746E-09 1.14565925E-03 -2.30829176E-09 1.13167744E-07 *AMF 218
940- *AMF 218 -1.59360066E-08 4.62135300E-03 -7.20713800E-09 1.11075678E-07 *AMF 219
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SORTED BULK DATA ECHO

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CARD
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*AMF 221 -5.72756135E-08 7.51198530E-02 -6.11313453E-08 1.12603573E-07*AMF 222
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*AMF 224 -1.36582905E-08 3.97974484E-03 -6.09107786E-09 4.81390714E-09*AMF 225
*AMF 225 -6.68363683E-09 1.24706281E-03 -2.10483835E-09 2.93122467E-08*AMF 226
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*AMF 235 -9.10786753E-08 -1.59746421E-08 6.17848709E-03 -4.90124066E-08*AMF 236
*AMF 236 -4.26910525E-08 -6.16177331E-09 1.10310975E-03 -3.12543271E-08*AMF 237
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*AMF 239 -5.25636645E-10 -7.77896410E-12 3.4157372E-08
*AMF 240
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*AMF 241 -8.54420913E-08 4.98198318E-08 -3.25102754E-08 3.21601212E-01*AMF 242
*AMF 242 -1.51141649E-07 1.70334282E-07 -5.10822353E-08 3.17531884E-01*AMF 243
*AMF 243 -1.38755481E-07 8.82548647E-09 -5.52387327E-08 4.09406304E-01*AMF 244
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*AMF 250 -3.14031396E-08 3.16363555E-08 -2.54653041E-08 2.53524021E-02*AMF 251
*AMF 251 -7.24679339E-09 9.13310672E-09 -6.32978470E-09
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*AMF 264
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*AMF 266 -1.17161640E-08 1.9620913E-03 -3.25635341E-09 1.04063029E-07*AMF 267
*AMF 267 -1.44351446E-08 3.86599894E-03 -5.68673612E-09 1.31052047E-07*AMF 268
*AMF 268 -2.367288530E-08 9.78355110E-03 -1.35082843E-08 1.41393400E-07*AMF 269

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Volume II

S O R T E D B U L K D A T A E C H O

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
951-		*AMF	269	-3.4379692CE-08	2.53895707E-02	-2.55959236E-08	1.29818815E-07	*AMF	270		
952-		*AMF	270	-3.30573577E-08	4.39098664E-02	-3.24104065E-08	1.07964297E-07	*AMF	271		
953-		*AMF	271	-2.5C750638E-08	1.96342915E-02	-1.77011010E-08	7.72431008E-08	*AMF	272		
954-		*AMF	272	-1.33842555E-08	5.01124561E-03	-6.97969682E-09	4.91717422E-08	*AMF	273		
955-		*AMF	273	-6.56114807E-09	1.52613820E-03	-2.45121079E-09	2.98655216E-08	*AMF	274		
956-		*AMF	274	-2.36726754E-09	2.31530721E-04	-2.80919288E-10	8.40017478E-09	*AMF	275		
957-		*AMF	275	-2.14674806E-10	4.76358309E-06	-5.87816341E-12		*AMF	276		
953-		DMI		*MFLE	40	17					
953-		*AMF	277	-1.25631235E-08	-8.98737307E-10	5.15687861E-05	-3.76073608E-08	*AMF	277		
954-		*AMF	278	-3.05392085E-08	3.26668492E-09	3.91629292E-04	-6.74574494E-08	*AMF	278		
960-		*AMF	279	-4.15710844E-09	-5.85910342E-09	1.14323034E-03	-8.40475423E-08	*AMF	279		
961-		*AMF	280	-7.54588427E-08	-1.29248257E-08	4.03625518E-03	-8.88060143E-08	*AMF	280		
962-		*AMF	281	-1.31114384E-07	-2.67577143E-09	1.52796321E-02	-6.51161259E-08	*AMF	281		
963-		*AMF	282	-1.74782826E-07	-3.24104406E-08	3.35556677E-02	-6.64910544E-08	*AMF	282		
964-		*AMF	283	-5.95541036E-08	-1.90231226E-04	1.21022277E-02	-4.94025016E-08	*AMF	283		
965-		*AMF	284	-4.14342516E-08	-7.17445585E-09	1.74034201E-03	-3.14492503E-08	*AMF	284		
966-		*AMF	285	-1.82272881E-08	-1.51198520E-09	3.26437410E-04	-1.90147362E-08	*AMF	285		
967-		*AMF	286	-5.77038506E-09	-4.41630066E-10	1.41173559E-05	-5.33387379E-09	*AMF	286		
963-		*AMF	287	-4.92805219E-10	-9.44957394E-12	5.01115095E-08		*AMF	287		
973-		DMI		*MFLE	41	17					
973-		*AMF	289	-8.14531833E-08	4.73786343E-08	-3.09430703E-08	1.70158863E-01	*AMF	289		
974-		*AMF	290	-1.44539399E-07	1.01649164E-07	-4.86639671E-08	3.05588245E-01	*AMF	290		
975-		*AMF	291	-1.32762352E-07	8.35105993E-08	-5.27013242E-08	3.00822616E-01	*AMF	291		
976-		*AMF	292	-1.96519466E-07	1.01649015E-07	-7.13258714E-08	3.84988322E-01	*AMF	292		
977-		*AMF	293	-2.16580254E-07	1.92828096E-07	-6.58772024E-08	4.17865515E-01	*AMF	293		
978-		*AMF	294	-1.61021262E-07	1.07964297E-07	-6.64910544E-08	3.43769193E-01	*AMF	294		
979-		*AMF	295	-1.5651453E-07	1.16213812E-07	-5.441230624E-08	3.93243134E-01	*AMF	295		
980-		*AMF	296	-1.25131365E-07	9.55323571E-08	-3.90579334E-08	2.53815651E-01	*AMF	296		
981-		*AMF	297	-7.42261974E-08	4.97054664E-09	-2.74462444E-08	1.572336695E-01	*AMF	297		
982-		*AMF	298	-3.27233991E-08	3.27563079E-08	-2.64237592E-08	9.38442945E-02	*AMF	298		
983-		*AMF	299	-7.45671258E-09	9.47564160E-09	-6.56836363E-09	2.63085234E-02	*AMF	299		
984-		DMI		*MFLE	42	17					
984-		*AMF	301	-3.42131484E-03	-3.91396071E-02	-9.39070684E-09	-7.69944677E-08	*AMF	301		
985-		*AMF	302	8.41044262E-03	9.54364297E-09	-2.30342087E-04	-1.38202154E-07	*AMF	302		
986-		*AMF	303	1.12371743E-02	-1.19859405E-04	-2.97603044E-08	-1.34068898E-07	*AMF	303		
987-		*AMF	304	1.57121687E-02	-1.86300898E-08	-5.37014233E-04	-1.70941991E-07	*AMF	304		
988-		*AMF	305	3.150823147E-02	-2.47877736E-04	-9.10766753E-04	-1.78658297E-07	*AMF	305		
989-		*AMF	306	3.61492112E-02	-2.50750638E-08	-9.95491036E-04	-1.43114865E-07	*AMF	306		
990-		*AMF	307	6.07672941E-02	-3.28345706E-08	-1.61910805E-07	-1.55051457E-07	*AMF	307		
991-		*AMF	308	2.11501755E-02	-1.80939031E-08	-5.89914428E-04	-1.10640254E-07	*AMF	308		
992-		*AMF	309	8.56172971E-03	-8.28159585E-08	-2.44538570E-08	-6.87197712E-08	*AMF	309		
993-		*AMF	310	2.77568330E-03	-2.35376407E-09	-6.46045351E-09	-4.21239933E-08	*AMF	310		
994-		*AMF	311	2.37225700E-04	-2.28371974E-10	-5.70626879E-10	-1.20244614E-08	*AMF	311		
995-		DMI		*MFLE	43	17					
995-		*AMF	313	-3.51749921E-09	2.94663245E-04	-5.40196554E-10	5.57664528E-08	*AMF	313		
996-		*AMF	314	-9.11251874E-09	1.17151428E-03	-2.02448969E-09	1.00007298E-07	*AMF	314		
997-		*AMF	315	-1.13713661E-08	2.27076630E-03	-3.57525387E-09	9.81360131E-09	*AMF	315		
998-		*AMF	316	-1.66825879E-08	5.54407303E-03	-8.52006821E-09	1.23851919E-07	*AMF	316		
999-		*AMF	317	-2.66644556E-08	1.31429397E-02	-1.59746421E-08	1.32153787E-07	*AMF	317		
1000-		*AMF	318	-2.46653116E-08	1.96342915E-02	-1.90231226E-08	1.09770042E-07	*AMF	318		
							1.16213812E-07	*AMF	319		

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
1001	*AMF	319	-3.2834570E-08	4.2703010E-02	-2.69147122E-08	7.95056394E-08	*AMF	320		
1002	*AMF	320	-1.66179106E-08	9.39138979E-03	-1.08279714E-08	5.04940054E-09	*AMF	321		
1003	*AMF	321	-8.21567170E-09	2.72328838E-03	-3.94836519E-09	3.06580610E-08	*AMF	322		
1004	*AMF	322	-3.06215608E-09	4.08952590E-04	-4.75950334E-10	8.63915517E-09	*AMF	323		
1005	*AMF	323	-2.83045805E-10	8.40296889E-06	-1.02938931E-11		*AMF	324		
1006	*MFLC									
1007	*AMF	325	-9.16277187E-09	-5.2658211E-10	2.42011592E-05	-3.03963326E-08	*AMF	325		
1008	*AMF	326	-2.24774155E-08	-1.94150229E-09	1.83049633E-04	-5.34552989E-08	*AMF	326		
1009	*AMF	327	-3.01211394E-08	-3.50265791E-09	5.82212132E-04	-6.78871857E-08	*AMF	327		
1010	*AMF	328	-5.28003918E-08	-7.73224329E-09	1.76754339E-03	-7.17506623E-08	*AMF	328		
1011	*AMF	329	-8.58212131E-08	-1.55123619E-08	6.17848709E-03	-5.44922756E-08	*AMF	329		
1012	*AMF	330	-5.70289351E-08	-1.77011019E-09	1.21022277E-02	-5.44120424E-08	*AMF	330		
1013	*AMF	331	-1.61910805E-07	-2.69147122E-08	3.29078324E-02	-4.28752642E-09	*AMF	331		
1014	*AMF	332	-5.66260603E-08	-1.05538973E-09	4.56614047E-03	-2.76443117E-09	*AMF	332		
1015	*AMF	333	-2.40169484E-08	-3.95431552E-09	8.29478493E-04	-1.67546581E-08	*AMF	333		
1016	*AMF	334	-7.40768513E-09	-7.2233118E-10	3.67109751E-05	-4.70133772E-09	*AMF	334		
1017	*AMF	335	-6.23116670E-10	-1.59229574E-11	1.31430738E-07		*AMF	335		
1018	*MFLC									
1019	*AMF	337	-6.05181252E-08	3.50451401E-08	-2.23782575E-08	1.25778019E-01	*AMF	337		
1020	*AMF	338	-1.08111010E-07	7.51552652E-08	-3.59786547E-08	2.25656569E-01	*AMF	338		
1021	*AMF	339	-5.56423065E-08	6.17028491E-08	-3.89457533E-08	2.21588492E-01	*AMF	339		
1022	*AMF	340	-1.47238836E-07	7.49392370E-08	-5.26849746E-08	2.82049047E-01	*AMF	340		
1023	*AMF	341	-1.61744536E-07	7.53266354E-08	-4.90124066E-08	3.01083624E-01	*AMF	341		
1024	*AMF	342	-1.18427465E-07	7.72431008E-08	-9.94025910E-08	2.39314973E-01	*AMF	342		
1025	*AMF	343	-1.10640258E-07	7.55056394E-09	-4.28752642E-08	2.53815651E-01	*AMF	343		
1026	*AMF	344	-1.22828283E-07	8.46338253E-09	-2.88869089E-09	2.47329950E-01	*AMF	344		
1027	*AMF	345	-6.53843695E-08	4.22631459E-09	-2.29770389E-08	1.39764488E-01	*AMF	345		
1028	*AMF	346	-2.77003878E-08	2.79201784E-09	-2.26523298E-08	8.08407664E-02	*AMF	346		
1029	*AMF	347	-6.43795772E-09	8.14641365E-09	-5.65076519E-09	2.26350315E-02	*AMF	347		
1030	*MFLC									
1031	*AMF	349	1.75850442E-03	-2.35156689E-09	-4.81293339E-09	-6.77578669E-08	*AMF	349		
1032	*AMF	350	4.25606159E-03	-5.10882003E-09	-1.17552545E-08	-1.21529581E-07	*AMF	350		
1033	*AMF	351	6.68582586E-03	-6.39251052E-09	-1.50757273E-08	-1.18346520E-07	*AMF	351		
1034	*AMF	352	9.78377401E-03	-1.11170001E-08	-8.66783818E-08	-1.50383414E-07	*AMF	352		
1035	*AMF	353	1.45312168E-02	-1.36582903E-08	-4.26910525E-08	1.87442420E-07	*AMF	353		
1036	*AMF	354	1.45965547E-02	-1.33842355E-08	-4.13421316E-08	-1.23077316E-07	*AMF	354		
1037	*AMF	355	2.11501755E-02	-1.66179106E-08	-5.66260603E-08	-1.29131365E-07	*AMF	355		
1038	*AMF	356	3.87309260E-02	-2.30840840E-09	-1.08921995E-07	-1.22828283E-07	*AMF	356		
1039	*AMF	357	1.31673254E-02	-9.73495818E-09	-3.60702442E-08	-7.04886247E-08	*AMF	357		
1040	*AMF	358	3.82357145E-03	-2.83700463E-09	-8.93220076E-09	-4.24027142E-08	*AMF	358		
1041	*AMF	359	3.26164789E-04	-3.05420356E-10	-7.94649901E-10	-1.21701191E-08	*AMF	359		
1042	*MFLC									
1043	*AMF	361	-2.16631608E-09	1.02667414E-04	-1.93700625E-10	4.87084257E-08	*AMF	361		
1044	*AMF	362	-5.1240210E-09	4.06190054E-04	-7.4305517E-10	8.73375025E-08	*AMF	362		
1045	*AMF	363	-6.51410005E-09	7.75044784E-04	-1.33811096E-09	8.56583711E-08	*AMF	363		
1046	*AMF	364	-1.0709517E-08	1.83082054E-03	-3.21155147E-09	1.08462018E-07	*AMF	364		
1047	*AMF	365	-1.54750233E-08	3.97976494E-03	-6.16177331E-09	1.15156979E-07	*AMF	365		
1048	*AMF	366	-1.42132937E-08	5.71124561E-03	-7.17445650E-09	9.19571335E-08	*AMF	366		
1049	*AMF	367	-1.80939035E-08	9.31138979E-03	-1.05518973E-09	9.55323571E-08	*AMF	367		
1050	*AMF	368	-2.30840840E-08	2.72372551E-02	-1.94985303E-08	8.46338253E-08	*AMF	368		
1051										
1052										
1053										

SORTED BULK DATA ECHO

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1051- *AMF 369 -1.04837241E-08 6.43364713E-03 -6.96429581E-09 3.09274029E-08 *AMF 370
1052- *AMF 370 -4.14400603E-09 9.79896169E-04 -9.10606035E-10 8.76577388E-09 *AMF 371
1053- *AMF 371 -4.03394425E-10 2.01707153E-05 -2.37194847E-11 -2.04432240E-08 *AMF 372
DM1 *MFLC 48 17
1054- *AMF 373 -4.90957675E-09 -1.33383767E-10 5.27083921E-06 -3.66608752E-08 *AMF 374
1055- *AMF 374 -1.20004948E-08 -7.12028438E-10 3.97126860E-05 -3.59562691E-09 *AMF 375
1056- *AMF 375 -1.85054888E-08 -1.14334077E-09 1.10244771E-04 -4.56654625E-08 *AMF 376
1057- *AMF 376 -2.72476278E-08 -3.01815284E-09 3.53509058E-04 -4.84205174E-08 *AMF 377
1058- *AMF 377 -4.17973034E-08 -6.09107786E-09 1.10313875E-03 -3.79036393E-08 *AMF 378
1059- *AMF 378 -4.19404458E-08 -6.97967682E-09 1.74034201E-03 -3.90579234E-08 *AMF 379
1060- *AMF 379 -5.89914428E-08 -1.08279714E-08 4.56614047E-03 -2.80869389E-08 *AMF 380
1061- *AMF 380 -1.08921995E-07 -1.74985503E-08 2.09160207E-02 -2.08298907E-08 *AMF 381
1062- *AMF 381 -3.71651545E-08 -6.94537050E-09 3.44815175E-03 -1.30425093E-08 *AMF 382
1063- *AMF 382 -1.06584355E-08 -1.57746260E-09 2.30406979E-04 -3.67908126E-09 *AMF 383
1064- *AMF 383 -9.10369113E-10 -3.32129051E-11 9.26412497E-07 -8.02371290E-02 *AMF 384
DM1 *MFLC 49 17
1065- *AMF 385 -3.88552976E-08 2.33691039E-09 -1.45959262E-08 1.43884778E-01 *AMF 385
1066- *AMF 386 -6.85204285E-08 4.79725450E-09 -2.29503812E-08 1.41137719E-01 *AMF 386
1067- *AMF 387 -6.34501589E-08 3.93981843E-09 -2.48321044E-09 1.79263532E-01 *AMF 388
1068- *AMF 388 -5.35246653E-08 4.78611746E-08 -3.35693359E-08 1.90390766E-01 *AMF 389
1069- *AMF 389 -1.02284389E-07 4.81390714E-09 -3.12543271E-09 1.50333166E-01 *AMF 390
1070- *AMF 390 -7.44419140E-08 4.91717422E-08 -3.14942503E-08 1.57236695E-01 *AMF 391
1071- *AMF 391 -6.87157712E-08 5.04940054E-09 -2.76442117E-08 1.39764448E-01 *AMF 392
1072- *AMF 392 -7.04886247E-09 5.14371266E-08 -2.08298907E-08 1.16237521E-01 *AMF 393
1073- *AMF 393 -4.54548652E-08 3.15933650E-08 -1.49913362E-08 5.95711507E-02 *AMF 394
1074- *AMF 394 -1.94674143E-08 2.02312407E-08 -1.65176779E-09 1.65934972E-02 *AMF 395
1075- *AMF 395 -4.64261872E-09 5.36557470E-09 -4.14190282E-09 -3.95034476E-08 *AMF 396
DM1 *MFLC 50 17
1076- *AMF 397 8.16836923E-04 -9.66346336E-10 -2.23567394E-09 -7.08240577E-08 *AMF 397
1077- *AMF 398 1.99309557E-03 -2.42266029E-09 -5.45288770E-09 -6.90151865E-08 *AMF 398
1078- *AMF 399 2.62935822E-03 -1.35066808E-09 -6.96735469E-09 -8.75492105E-08 *AMF 399
1079- *AMF 400 4.42845695E-03 -4.84907122E-09 -1.22403863E-08 -9.16047611E-08 *AMF 400
1080- *AMF 401 6.74488395E-03 -6.58363853E-09 -1.92913790E-08 -7.14515025E-08 *AMF 401
1081- *AMF 402 6.03008913E-03 -8.14114407E-09 -1.81272411E-08 -7.14515025E-08 *AMF 402
1082- *AMF 403 8.54172971E-03 -8.21561701E-09 -2.40165484E-08 -6.53043699E-08 *AMF 403
1083- *AMF 404 1.31673254E-02 -1.34817241E-09 -3.71651545E-08 -4.94548651E-08 *AMF 404
1084- *AMF 405 1.92134865E-02 -9.34339010E-09 -5.36626741E-08 -2.77809953E-08 *AMF 405
1085- *AMF 406 4.20496985E-03 -2.55699374E-09 -9.84580950E-09 -8.06666378E-09 *AMF 406
1086- *AMF 407 3.45005917E-04 -3.18347687E-10 -8.39723180E-10 -2.57716586E-08 *AMF 407
DM1 *MFLC 51 17
1087- *AMF 409 -5.64622160E-10 3.33310600E-05 -6.39418379E-11 4.61987852E-08 *AMF 408
1088- *AMF 410 -2.25287864E-09 1.31603214E-04 -2.48639997E-10 4.52832261E-08 *AMF 409
1089- *AMF 411 -2.54587554E-09 2.49649396E-04 -4.52803794E-10 5.73352175E-08 *AMF 410
1090- *AMF 412 -4.90227592E-09 5.34049150E-04 -1.09358444E-09 6.07019501E-08 *AMF 411
1091- *AMF 413 -7.05274061E-09 1.24706281E-03 -2.13578841E-09 4.80682445E-08 *AMF 412
1092- *AMF 414 -6.56599042E-09 1.52613828E-03 -2.51198529E-09 4.97054664E-08 *AMF 413
1093- *AMF 415 -8.28159555E-09 2.72328381E-03 -3.48541355E-09 4.22631450E-08 *AMF 414
1094- *AMF 416 -5.73955418E-09 6.93764713E-03 -6.94543705E-09 3.15936504E-08 *AMF 415
1095- *AMF 417 -9.84739010E-09 1.45373771E-02 -9.63540359E-09 1.85176070E-09 *AMF 416
1096- *AMF 418 -2.91673892E-09 1.50552299E-03 -1.17207021E-09 5.32030454E-09 *AMF 417
1097- *AMF 419 -2.91673892E-09 1.50552299E-03 -1.17207021E-09 5.32030454E-09 *AMF 418
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EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
1101-	1102-	1103-	1104-	1105-	1106-	1107-	1108-	1109-	1110-	1111-	1112-
1113-	1114-	1115-	1116-	1117-	1118-	1119-	1120-	1121-	1122-	1123-	1124-
1125-	1126-	1127-	1128-	1129-	1130-	1131-	1132-	1133-	1134-	1135-	1136-
1137-	1138-	1139-	1140-	1141-	1142-	1143-	1144-	1145-	1146-	1147-	1148-
1149-	1150-										
<p>*AMF 419 -4.01757072E-10 2.35450300E-05 -3.3990119E-11</p> <p>DMI *MFLD 52 17</p> <p>*AMF 421 -2.22585541E-09 -6.36112968E-11 1.05410618E-06 -2.54773553E-08 *AMF 420</p> <p>*AMF 422 -5.44170220E-09 -2.44512632E-10 7.95273800E-06 -2.49822563E-08 *AMF 421</p> <p>*AMF 423 -7.18258519E-09 -4.53194815E-10 2.19994104E-05 -3.17108686E-08 *AMF 422</p> <p>*AMF 424 -1.22552461E-09 -1.32954845E-09 6.97666401E-05 -3.36156170E-08 *AMF 423</p> <p>*AMF 425 -1.84242923E-08 -2.13483853E-09 2.15378110E-04 -2.64362612E-08 *AMF 424</p> <p>*AMF 426 -1.81126651E-09 -2.15121070E-09 3.26417410E-04 -2.74462444E-08 *AMF 425</p> <p>*AMF 427 -2.44538576E-08 -3.34836519E-09 8.24784930E-04 -2.28779389E-08 *AMF 426</p> <p>*AMF 428 -3.60762442E-08 -6.95429581E-09 3.44815175E-03 -1.49913362E-08 *AMF 427</p> <p>*AMF 429 -5.36626742E-08 -9.53540359E-09 1.02085583E-02 -1.03414699E-08 *AMF 428</p> <p>*AMF 430 -1.14712506E-08 -2.21125940E-09 4.87286777E-04 -2.93798363E-09 *AMF 429</p> <p>*AMF 431 -5.52437240E-10 -5.50005294E-11 1.79082509E-06 *AMF 430</p> <p>DMI *MFLD 53 17</p> <p>*AMF 433 -2.37181546E-08 1.36033513E-08 -8.87232687E-09 8.74247551E-02 *AMF 431</p> <p>*AMF 434 -4.21310480E-08 2.11739148E-08 -1.39472078E-03 8.56810212E-02 *AMF 432</p> <p>*AMF 435 -3.89419556E-08 2.39662583E-08 -1.50818060E-08 1.08648896E-01 *AMF 433</p> <p>*AMF 436 -5.72598928E-08 2.91214981E-08 -2.03677040E-09 1.14975631E-01 *AMF 434</p> <p>*AMF 437 -6.25564740E-08 2.3122469E-08 -1.89414600E-08 9.04085636E-02 *AMF 435</p> <p>*AMF 438 -4.5557716E-08 2.8655216E-08 -1.90147382E-08 9.38442945E-02 *AMF 436</p> <p>*AMF 439 -4.2133932E-08 3.06580610E-08 -1.67546581E-08 8.08407664E-02 *AMF 437</p> <p>*AMF 440 -4.24027142E-08 3.09274029E-08 -1.30425093E-08 5.95711507E-02 *AMF 438</p> <p>*AMF 441 -2.77869953E-08 1.85176070E-08 -1.03414699E-08 5.56784272E-02 *AMF 439</p> <p>*AMF 442 -1.56546025E-08 1.55091425E-08 -1.14648381E-08 1.38386935E-02 *AMF 440</p> <p>*AMF 443 -3.74588316E-09 4.94911134E-09 -3.45067219E-09 *AMF 441</p> <p>DMI *MFLD 54 17</p> <p>*AMF 445 -2.63829017E-08 -3.18811184E-10 -7.22054860E-10 -3.10189847E-08 *AMF 442</p> <p>*AMF 446 -6.42279636E-04 -8.09393574E-10 -1.75963133E-09 -3.02533927E-08 *AMF 443</p> <p>*AMF 447 -8.47022049E-04 -1.03278810E-09 -2.25361152E-09 -3.83290164E-08 *AMF 444</p> <p>*AMF 448 -1.44081472E-03 -1.68324807E-03 -3.92647337E-09 -4.01236449E-08 *AMF 445</p> <p>*AMF 449 -2.18907899E-03 -2.17547115E-09 -6.13811475E-09 -3.14031396E-08 *AMF 446</p> <p>*AMF 450 -2.09199556E-03 -2.36726794E-09 -5.77018506E-09 -3.23233991E-08 *AMF 447</p> <p>*AMF 451 -2.7568730F-03 -3.05215608E-09 -7.40749413E-09 -2.77007178E-08 *AMF 448</p> <p>*AMF 452 -3.83327145E-03 -4.14660001E-09 -1.06084350E-09 -1.94674141E-08 *AMF 449</p> <p>*AMF 453 -4.20456985E-03 -3.31671891E-09 -1.14712504E-09 -1.56546029E-08 *AMF 450</p> <p>*AMF 454 -5.77132042E-03 -4.39773548E-09 -2.26942549E-09 -4.635958472E-09 *AMF 451</p> <p>*AMF 455 -5.91920685E-04 -5.19720933E-10 -1.42372714E-09 *AMF 452</p> <p>DMI *MFLD 55 17</p> <p>*AMF 457 -2.56703991E-10 5.03826543E-06 -9.95774557E-12 3.06247543E-08 *AMF 453</p> <p>*AMF 458 -6.17527362E-10 2.00888499E-05 -3.94244359E-11 3.0008097E-08 *AMF 454</p> <p>*AMF 459 -7.55005559E-10 3.81000710E-05 -7.31965780E-11 3.8024930E-08 *AMF 455</p> <p>*AMF 460 -1.34101064E-09 8.90931016E-05 -1.73705814E-10 4.02103610E-08 *AMF 456</p> <p>*AMF 461 -1.55150140E-09 1.90075018E-04 -3.65947050E-10 3.16394555E-08 *AMF 457</p> <p>*AMF 462 -1.84310012E-09 2.31510721E-04 -4.41630066E-10 3.27563079E-08 *AMF 458</p> <p>*AMF 463 -2.35376440E-09 4.08952590E-04 -7.29233118E-10 2.79201764E-08 *AMF 459</p> <p>*AMF 464 -2.82700463E-09 5.79896169E-04 -1.57746260E-09 2.02312407E-08 *AMF 460</p> <p>*AMF 465 -2.65699374E-09 1.30592290E-03 -2.21125140E-09 1.66091425E-08 *AMF 461</p> <p>*AMF 466 -4.05773548E-09 6.95790350E-03 -1.26325461E-09 4.81361795E-09 *AMF 462</p> <p>*AMF 467 -5.16372722E-10 8.77584994E-05 -9.41036415E-11 -1.37417686E-09 *AMF 463</p> <p>DMI *MFLD 56 17</p>											

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

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1151- *AMF 469 -6.14105655E-10 -6.61268696E-12 4.73843368E-08 -2.46325058E-08 *AMF 470
1152- *AMF 470 -1.49737978E-09 -2.58035399E-11 3.57091498E-07 -2.41408102E-08 *AMF 471
1153- *AMF 471 -1.57180827E-09 -4.34539492E-11 9.04825419E-07 -3.06111616E-08 *AMF 472
1154- *AMF 472 -3.35408346E-09 -1.11930125E-10 3.12051543E-06 -3.23908793E-08 *AMF 473
1155- *AMF 473 -5.00332575E-09 -2.34710251E-10 9.53508989E-06 -2.54653081E-08 *AMF 474
1156- *AMF 474 -4.87006702E-09 -2.80919288E-10 1.41173558E-05 -2.64237935E-09 *AMF 475
1157- *AMF 475 -6.46045351E-09 -4.75950834E-10 3.67109751E-05 -2.26521294E-08 *AMF 476
1158- *AMF 476 -8.92220076E-09 -9.10606035E-10 2.30406979E-04 -1.65176779E-09 *AMF 477
1159- *AMF 477 -5.84580950E-09 -1.17207621E-09 4.87280777E-04 -1.34648381E-08 *AMF 478
1160- *AMF 478 -2.26942585E-08 -1.26325461E-09 5.15867986E-03 -3.99532319E-09 *AMF 479
1161- *AMF 479 -1.37655531E-09 -9.91460941E-11 1.03454955E-05 *AMF 480
DMI *MFLC 57
1162- *AMF 481 -6.67433397E-09 3.91682952E-09 -2.48904386E-09 1.36823319E-02 *AMF 481
1163- *AMF 482 -1.18663155E-08 8.18649326E-09 -3.91272437E-09 2.45257391E-02 *AMF 482
1164- *AMF 483 -1.05618661E-09 6.72729428E-09 -4.23095519E-09 2.40357630E-02 *AMF 483
1165- *AMF 484 -1.61736082E-08 8.17850076E-09 -5.71368375E-09 3.04769464E-02 *AMF 484
1166- *AMF 485 -1.77236288E-09 8.24181338E-09 -5.31363348E-09 3.22471745E-02 *AMF 485
1167- *AMF 486 -1.29456157E-09 8.40017478E-09 -5.33387379E-09 2.53529021E-02 *AMF 486
1168- *AMF 487 -1.20244614E-09 8.53915517E-09 -4.70138772E-09 2.63085254E-02 *AMF 487
1169- *AMF 488 -1.21701191E-09 8.76577388E-09 -3.67908126E-09 1.65934972E-02 *AMF 488
1170- *AMF 489 -8.06666378E-09 5.32098454E-09 -2.93798363E-09 2.26350315E-02 *AMF 489
1171- *AMF 490 -4.62958472E-09 4.91361795E-09 -3.89532318E-09 1.38386935E-02 *AMF 490
1172- *AMF 491 -1.5495225E-09 2.22508767E-09 -1.56711200E-09 6.31405786E-03 *AMF 491
1173- *MFLC 58
1174- *AMF 493 2.26127158E-05 -2.75938994E-11 -6.18866763E-11 -3.94229716E-09 *AMF 492
1175- *AMF 494 5.51226375E-05 -7.03365144E-11 -1.50809615E-10 -7.06620540E-09 *AMF 493
1176- *AMF 495 7.25853024E-05 -9.04990805E-11 -1.92265218E-10 -6.91245106E-09 *AMF 494
1177- *AMF 496 1.23442864E-04 -4.48873192E-11 -3.36398909E-10 -8.76195115E-09 *AMF 495
1178- *AMF 497 1.84029137E-04 -2.13350387E-11 -5.25636648E-10 -9.23444956E-09 *AMF 496
1179- *AMF 498 1.75022070E-04 -2.14674806E-11 -4.93405219E-10 -7.24679339E-09 *AMF 497
1180- *AMF 499 2.37225700E-04 -2.83045809E-11 -6.33116670E-10 -7.49671258E-09 *AMF 498
1181- *AMF 500 3.26184785E-04 -4.03384429E-11 -9.10369113E-10 -6.43795773E-09 *AMF 499
1182- *AMF 501 3.45005917E-04 -4.01757672E-11 -9.52417240E-10 -4.64261873E-09 *AMF 500
1183- *AMF 502 7.91923401E-04 -5.16172733E-11 -1.31655318E-09 -3.74088310E-09 *AMF 501
1184- *AMF 503 5.31284371E-04 -4.30362190E-11 -1.27499278E-09 -1.54084224E-09 *AMF 502
1185- *MFLC 59
1186- *AMF 505 -2.24502500E-11 1.04769924E-07 -2.07032958E-13 4.92929736E-09 *AMF 503
1187- *AMF 506 -5.45624934E-11 4.13636940E-07 -8.22092665E-13 8.83577300E-09 *AMF 504
1188- *AMF 507 -7.15590642E-11 7.84471183E-07 -1.53274268E-12 8.65914629E-09 *AMF 505
1189- *AMF 508 -1.21204905E-10 1.93414077E-06 -3.78140574E-12 1.09790825E-08 *AMF 506
1190- *AMF 509 -1.75821602E-10 3.91203594E-06 -7.77896410E-12 1.16161907E-08 *AMF 507
1191- *AMF 510 -1.72763531E-10 4.76358309E-06 -9.44557394E-12 9.13310672E-09 *AMF 508
1192- *AMF 511 -2.28371574E-10 8.40296880E-06 -1.59229574E-11 9.47564160E-09 *AMF 509
1193- *AMF 512 -3.05420356E-10 2.01707153E-05 -3.82129351E-11 8.14641865E-09 *AMF 510
1194- *AMF 513 -3.18340687E-10 2.95450300E-05 -5.50905294E-11 5.96557470E-09 *AMF 511
1195- *AMF 514 -5.15720033E-10 8.77554994E-05 -9.91460941E-11 4.94911134E-09 *AMF 512
1196- *AMF 515 -4.30362190E-11 1.24267157E-04 -1.16118705E-10 2.22508767E-09 *AMF 513
1197- *MFLC 60
1198- *AMF 517 -5.43918244E-11 -1.31680962E-13 1.70598827E-10 -3.41605655E-09 *AMF 514
1199- *AMF 518 -1.32615308E-10 -5.17105253E-13 1.26512312E-09 -6.12331874E-09 *AMF 515
1200- *AMF 519 -1.32615308E-10 -5.17105253E-13 1.26512312E-09 -6.00094460E-09 *AMF 516
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SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
1201		*AMF 519	-1.74557475E-10	-9.77044834E-13	3.54329699E-09	-7.60914531E-09	*AMF 520				
1202		*AMF 520	-2.96931146E-10	-2.27803540E-12	1.12147021E-08	-8.05110645E-09	*AMF 521				
1203		*AMF 521	-4.42669675E-10	-4.34187430E-12	3.41575372E-08	-6.32978470E-09	*AMF 522				
1204		*AMF 522	-4.30625313E-10	-5.97816341E-12	5.01115096E-08	-6.56836363E-09	*AMF 523				
1205		*AMF 523	-5.76626879E-10	-1.02938933E-11	1.31430738E-07	-5.65076514E-09	*AMF 524				
1206		*AMF 524	-7.64649901E-10	-2.37144847E-11	9.26412497E-07	-4.14190282E-09	*AMF 525				
1207		*AMF 525	-8.35723180E-10	-3.39990119E-11	1.79042508E-06	-3.45067219E-09	*AMF 526				
1208		*AMF 526	-1.42372714E-09	-9.41036415E-11	1.03454895E-05	-1.56711200E-09	*AMF 527				
1209		*AMF 527	-1.27490278E-09	-1.16318705E-10	2.50535838E-05	*AMF 528					
1210		*MFLC									
1211	DMI										
1212		*AMF 529	-4.21801436E-08	2.30300760E-09	-7.66209141E-09	1.10990047E-01	*AMF 529				
1213		*AMF 530	-5.91455738E-08	3.78323861E-09	-2.14871108E-08	1.19999521E-01	*AMF 530				
1214		*AMF 531	-5.65346777E-08	3.94502884E-08	-1.07337258E-08	1.19519413E-01	*AMF 531				
1215		*AMF 532	-6.08237265E-08	3.88276682E-08	-2.07045820E-08	8.33041601E-02	*AMF 532				
1216		*AMF 533	-4.27322391E-08	2.78155632E-08	-1.54645434E-08	4.90845889E-02	*AMF 533				
1217		*AMF 534	-2.51660257E-08	1.43728194E-08	-9.34655202E-09	6.15712553E-02	*AMF 534				
1218		*AMF 535	-3.17995301E-08	2.01364259E-03	-1.06780079E-08	4.49862964E-02	*AMF 535				
1219		*AMF 536	-2.23183832E-08	1.24570327E-09	-7.34058148E-09	2.72853412E-02	*AMF 536				
1220		*AMF 537	-1.22757484E-08	8.10435807E-09	-5.34357270E-09	2.61024237E-02	*AMF 537				
1221		*AMF 538	-1.41714551E-08	6.65346899E-09	-4.5533192E-09	1.23995692E-02	*AMF 538				
1222		*AMF 539	-6.4721961E-09	3.59977705E-09	-2.58110711E-09	*AMF 540					
1223	DMI										
1224		*MFLC									
1225		*AMF 541	3.25014249E-02	-1.76966779E-08	-9.23996542E-08	-4.21801438E-08	*AMF 541				
1226		*AMF 542	5.26887551E-03	-6.29664854E-09	-1.41663925E-08	-5.69427208E-08	*AMF 542				
1227		*AMF 543	6.8550256E-04	-7.32378162E-10	-1.90760074E-09	-5.85070765E-08	*AMF 543				
1228		*AMF 544	8.76815857E-05	-1.18088192E-10	-2.32776659E-10	-4.09660394E-08	*AMF 544				
1229		*AMF 545	8.76717765E-06	-9.35099849E-12	-2.43436650E-11	-2.41381066E-08	*AMF 545				
1230		*AMF 546	2.2575447E-06	-2.72581437E-12	-6.17906254E-12	-3.02792778E-08	*AMF 546				
1231		*AMF 547	1.28012016E-06	-1.53419898E-12	-3.50364009E-12	-2.21234018E-08	*AMF 547				
1232		*AMF 548	3.77952176E-07	-4.72911424E-13	-1.00787434E-12	-1.34144042E-08	*AMF 548				
1233		*AMF 549	1.90437561E-07	-2.37673132E-13	-5.46309055E-13	-1.28367077E-08	*AMF 549				
1234		*AMF 550	1.10556357E-07	-1.37193479E-13	-3.00847997E-13	-6.09790263E-09	*AMF 550				
1235		*AMF 551	2.20784103E-08	-2.94997829E-14	-6.18741169E-14	*AMF 552					
1236	DMI										
1237		*MFLC									
1238		*AMF 553	-1.76566775E-08	2.30245739E-02	-1.82510647E-08	8.80390780E-09	*AMF 553				
1239		*AMF 554	-6.22590742E-09	2.14472253E-04	-1.8757537E-09	3.68150615E-08	*AMF 554				
1240		*AMF 555	-7.62196528E-10	8.13265835E-05	7.15717608E-11	3.98046431E-08	*AMF 555				
1241		*AMF 556	-1.1604169CE-10	-9.39079746E-06	-2.0678614E-11	3.98354807E-08	*AMF 556				
1242		*AMF 557	-9.709336435E-12	1.34006085E-06	3.61412636E-12	2.77600385E-08	*AMF 557				
1243		*AMF 558	-2.62765504E-12	1.01470008E-07	9.40441914E-14	1.63604322E-08	*AMF 558				
1244		*AMF 559	-1.51670063E-12	6.44633021E-09	-3.54147897E-14	2.05233677E-08	*AMF 559				
1245		*AMF 560	-4.61147078E-13	8.55937180E-09	-1.62245044E-14	1.49949497E-08	*AMF 560				
1246		*AMF 561	-2.23496707E-13	3.55264184E-09	-7.97254242E-15	9.09481912E-09	*AMF 561				
1247		*AMF 562	-1.34966882E-13	1.12291804E-09	-3.91459326E-15	8.70052830E-09	*AMF 562				
1248		*AMF 563	-2.05527316E-14	4.31160802E-11	-9.169502689E-16	4.13305656E-09	*AMF 563				
1249		*MFLC									
1250	DMI										
1251		*AMF 565	-9.28996542E-08	-1.02510647E-08	1.63405836E-02	-7.66209141E-09	*AMF 565				
1252		*AMF 566	-1.42000985E-08	-1.87278193E-09	-8.92708311E-04	-1.85551226E-08	*AMF 566				
1253		*AMF 567	-1.50755212E-09	7.31351923E-11	1.440478618E-04	-1.79294517E-08	*AMF 567				
1254		*AMF 568	-2.34791075E-10	-2.01978223E-11	-2.30421613E-04	-1.80198008E-08	*AMF 568				
1255		*AMF 569	-2.34791075E-10	-2.01978223E-11	-2.30421613E-04	-1.25510553E-09	*AMF 569				

CARD

SORTED BULK DATA ECHO

1 2 3 4 5 6 7 8 9 10
*AMF 569 -2.46623139E-11 3.49567163E-12 3.43904594E-06 -7.39594697E-09 *AMF 570
*AMF 570 -6.33936392E-12 1.04148840E-13 2.91075708E-07 -9.27759913E-09 *AMF 571
*AMF 571 -3.50489082E-12 -2.96292735E-14 5.98943757E-08 -6.77859191E-09 *AMF 572
*AMF 572 -1.03087591E-12 -1.52655768E-14 2.11243267E-09 -4.11138856E-09 *AMF 573
*AMF 573 -5.19127005E-13 -7.41677295E-15 4.71042316E-10 -3.93314536E-09 *AMF 574
*AMF 574 -2.00284754E-13 -3.40285386E-15 -9.81833087E-11 -1.86838300E-09 *AMF 575
*AMF 575 -6.16723465E-14 -6.52249251E-16 -1.53741044E-11 *AMF 576
DMI *MFLC 89 85 1.19999528E-01 *AMF 577
*AMF 577 -5.69427208E-08 3.99150615E-08 -1.85553226E-08 5.22863805E-01 *AMF 578
*AMF 578 -2.41927239E-07 1.50642279E-07 -7.82019924E-08 4.94519293E-01 *AMF 579
*AMF 579 -2.46003578E-07 1.64957839E-07 -8.25501161E-08 4.93000507E-01 *AMF 580
*AMF 580 -2.48214405E-07 1.60126149E-07 -8.52594484E-08 3.43633831E-01 *AMF 581
*AMF 581 -1.76240064E-07 1.14740146E-07 -6.39087272E-08 2.02464402E-01 *AMF 582
*AMF 582 -1.03551258E-07 5.91210672E-08 -3.85544066E-08 2.53968835E-01 *AMF 583
*AMF 583 -1.31163063E-07 8.30589215E-08 -4.40449561E-08 1.85559154E-01 *AMF 584
*AMF 584 -9.20452976E-08 5.13827345E-08 -3.02783967E-08 1.12546384E-01 *AMF 585
*AMF 585 -5.06344387E-08 3.34208295E-08 -2.20411458E-08 1.07667089E-01 *AMF 586
*AMF 586 -5.64540203E-08 2.74441874E-08 -1.88022511E-08 5.11456542E-02 *AMF 587
*AMF 587 -2.49434677E-08 1.49442076E-08 -1.66453308E-08 *AMF 588
DMI *MFLC 90 85 -5.91455738E-08 *AMF 589
*AMF 589 -5.26887551E-08 -6.22530743E-09 -1.43000989E-08 -2.41927239E-07 *AMF 590
*AMF 590 -6.21655583E-08 -3.87406659E-08 -1.72183832E-07 -2.48962749E-07 *AMF 591
*AMF 591 -7.54402578E-08 -9.28747212E-09 -2.04605577E-08 -2.50752407E-07 *AMF 592
*AMF 592 -5.55789583E-08 -1.09175069E-09 -2.62316064E-09 -1.75019011E-07 *AMF 593
*AMF 593 -5.57088341E-08 -1.27310315E-10 -2.55705457E-10 -1.03132095E-07 *AMF 594
*AMF 594 -2.45672739E-08 -3.33130745E-11 -6.63812200E-11 -1.29374826E-07 *AMF 595
*AMF 595 -1.38598594E-08 -1.78592280E-11 -3.79127146E-11 -9.45281387E-08 *AMF 596
*AMF 596 -4.10285247E-08 -5.25108324E-12 -1.09588640E-11 -5.73338568E-09 *AMF 597
*AMF 597 -2.06714139E-08 -2.51478526E-12 -5.94600497E-12 -5.48486341E-08 *AMF 598
*AMF 598 -1.15992815E-08 -1.49997134E-12 -3.2828403E-12 -2.60552078E-08 *AMF 599
*AMF 599 -2.48316456E-07 -3.09382186E-13 -6.79961729E-13 *AMF 600
DMI *MFLD 91 85 3.78323861E-08 *AMF 601
*AMF 601 -6.25664854E-09 2.14472253E-04 -1.87278193E-09 1.50642279E-07 *AMF 602
*AMF 602 -3.87406659E-08 3.74060906E-02 -3.29082299E-04 1.50190994E-07 *AMF 603
*AMF 603 -5.17090441E-09 1.46620579E-04 -2.05876005E-09 1.55731243E-07 *AMF 604
*AMF 604 -1.06738351E-09 1.11458209E-04 6.9306305E-11 1.08580991E-07 *AMF 605
*AMF 605 -1.27212576E-10 -8.86082665E-06 -1.90022442E-11 6.39727205E-08 *AMF 606
*AMF 606 -2.25240390E-11 -1.66949030E-06 2.02273799E-13 8.02460249E-08 *AMF 607
*AMF 607 -1.77303311E-11 -5.69178667E-07 4.97855500E-13 5.86306115E-08 *AMF 608
*AMF 608 -5.17096655E-12 -7.5505112E-08 1.1973936E-13 3.55099511E-08 *AMF 609
*AMF 609 -2.59969477E-12 -3.14107015E-08 4.94124361E-14 3.40192550E-09 *AMF 610
*AMF 610 -1.50828850E-12 -1.31642605E-08 1.49080272E-14 1.61603353E-08 *AMF 611
*AMF 611 -3.14013297E-13 -3.81521925E-10 -2.46313136E-15 *AMF 612
DMI *MFLC 92 85 -2.14871108E-08 *AMF 613
*AMF 613 -1.41663925E-08 -1.89575758E-09 -8.92708311E-04 -7.82019924E-08 *AMF 614
*AMF 614 -1.72183832E-07 -3.29082299E-08 2.50717121E-02 -8.71268639E-08 *AMF 615
*AMF 615 -2.02446362E-08 -2.09996798E-09 -1.09075463E-03 -8.61423929E-08 *AMF 616
*AMF 616 -2.62405764E-09 7.12849640E-11 1.76304526E-04 -6.01259559E-08 *AMF 617
*AMF 617 -2.56046561E-10 -1.88404570E-11 -2.25027034E-05 -3.54191485E-08 *AMF 618
*AMF 618 -6.74713341E-11 8.12483761E-14 -1.92699463E-06 -4.44280879E-08 *AMF 619

EXTERNAL JACK W. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1301-	*AMF 619	-3.7715400E-11	4.45295439E-13	-3.94021470E-07	-3.24606617E-08	*AMF 620				
1302-	*AMF 620	-1.11362300E-11	1.16619388E-13	-1.41816656E-08	-1.96882191E-08	*AMF 621				
1303-	*AMF 621	-5.61057349E-12	5.05918481E-14	3.24659521E-09	-1.88346618E-08	*AMF 622				
1304-	*AMF 622	-3.25213207E-12	1.61591727E-14	5.95379968E-10	-8.94712571E-09	*AMF 623				
1305-	*AMF 623	-6.70751540E-13	-1.68464583E-15	9.72937564E-11		*AMF 624				
1306-	*MFLD									
1307-	DMI									
1308-	*AMF 625	-5.85607076E-08	3.98046431E-08	-1.79294517E-09	1.19519413E-01	*AMF 625				
1309-	*AMF 626	-2.48562745E-07	1.56190993E-07	-8.71268639E-09	4.94519293E-01	*AMF 626				
1310-	*AMF 627	-4.12212785E-07	2.73050276E-07	-1.29475950E-07	8.67724350E-01	*AMF 627				
1311-	*AMF 628	-4.18062314E-07	2.71208592E-07	-1.45210151E-07	8.34789574E-01	*AMF 628				
1312-	*AMF 629	-2.57628560E-07	1.33875564E-07	-1.07739027E-07	5.80755532E-01	*AMF 629				
1313-	*AMF 630	-1.74926011E-07	9.98982728E-08	-6.51419896E-08	3.42133164E-01	*AMF 630				
1314-	*AMF 631	-1.21686058E-07	1.40350267E-07	-7.44251452E-09	4.29155171E-01	*AMF 631				
1315-	*AMF 632	-1.55527061E-07	8.64253665E-08	-5.11638767E-08	3.13554883E-01	*AMF 632				
1316-	*AMF 633	-8.55562803E-08	5.64873233E-08	-3.72447282E-08	1.90178871E-01	*AMF 633				
1317-	*AMF 634	-5.87716362E-08	4.63746197E-08	-3.17717017E-08	1.81933761E-01	*AMF 634				
1318-	*AMF 635	-4.21483826E-09	2.50834411E-09	-1.79902919E-08	8.64248276E-02	*AMF 635				
1319-	*MFLC									
1320-	DMI									
1321-	*AMF 637	6.85506298E-04	-7.62196528E-10	-1.90755212E-09	-5.99346777E-08	*AMF 637				
1322-	*AMF 638	7.54402578E-03	-9.17099641E-09	-2.03446362E-08	-2.46093578E-07	*AMF 638				
1323-	*AMF 639	6.31199628E-02	-4.14820948E-08	-1.76356991E-07	-4.12212785E-07	*AMF 639				
1324-	*AMF 640	7.33279328E-01	-9.13402332E-09	-1.97219627E-08	-4.17382751E-07	*AMF 640				
1325-	*AMF 641	7.33913155E-04	-8.24954926E-10	-2.80433470E-09	-2.92187337E-07	*AMF 641				
1326-	*AMF 642	1.91509767E-04	-2.24147945E-10	-5.13075804E-10	-1.72234309E-07	*AMF 642				
1327-	*AMF 643	1.06659058E-04	-1.27696381E-10	-2.91820568E-10	-2.16097476E-07	*AMF 643				
1328-	*AMF 644	3.14859208E-05	-3.20153044E-11	-8.42214631E-11	-1.57005561E-07	*AMF 644				
1329-	*AMF 645	1.58639741E-05	-1.86995280E-11	-4.57060362E-11	-9.57737373E-08	*AMF 645				
1330-	*AMF 646	5.20858765E-06	-1.11921080E-11	-2.52314142E-11	-9.16242584E-08	*AMF 646				
1331-	*AMF 647	1.50567571E-06	-2.32288494E-12	-5.25068617E-12	-4.35261036E-08	*AMF 647				
1332-	*MFLD									
1333-	DMI									
1334-	*AMF 649	-7.82378162E-10	8.18265835E-05	7.31351923E-11	3.48502884E-03	*AMF 649				
1335-	*AMF 650	-9.28747212E-09	1.46520572E-04	-2.67096798E-09	1.64957839E-07	*AMF 650				
1336-	*AMF 651	-4.14825548E-08	3.78997740E-02	-3.24581812E-08	2.73850276E-07	*AMF 651				
1337-	*AMF 652	-9.13404407E-09	9.11157086E-06	-1.98816990E-09	2.70555547E-07	*AMF 652				
1338-	*AMF 653	-8.34589731E-10	8.20041747E-05	7.08124670E-11	1.03752781E-07	*AMF 653				
1339-	*AMF 654	-2.25392038E-10	1.43072175E-05	-7.79461305E-12	1.14160002E-07	*AMF 654				
1340-	*AMF 655	-1.29170397E-10	4.69353036E-06	-5.35232362E-12	1.43201644E-07	*AMF 655				
1341-	*AMF 656	-3.88200593E-11	6.18402964E-07	-1.10045046E-12	1.04629066E-07	*AMF 656				
1342-	*AMF 657	-1.56210407E-11	2.54736449E-07	-4.71456207E-13	6.34002202E-08	*AMF 657				
1343-	*AMF 658	-1.14839813E-11	8.03248688E-09	-1.72236198E-13	6.07089419E-08	*AMF 658				
1344-	*AMF 659	-2.39469122E-12	3.0806873E-09	-1.28835151E-14	2.86389046E-08	*AMF 659				
1345-	*MFLC									
1346-	DMI									
1347-	*AMF 661	-1.50760074E-09	7.15737608E-11	1.40678618E-04	-1.97337258E-08	*AMF 661				
1348-	*AMF 662	-2.04605577E-08	-2.05076005E-09	-1.08705463E-03	-8.25501161E-08	*AMF 662				
1349-	*AMF 663	-1.76356991E-07	-3.24581812E-08	2.52847485E-02	-1.29475950E-07	*AMF 663				
1350-	*AMF 664	-1.97577315E-08	-1.94531656E-09	-1.17256818E-03	-1.30040879E-07	*AMF 664				
1351-	*AMF 665	-2.02578190E-09	6.51151355E-11	1.41111309E-04	-9.61876481E-08	*AMF 665				
1352-	*AMF 666	-5.25425703E-10	-7.30554679E-12	1.25194625E-05	-5.67048346E-08	*AMF 666				
1353-	*AMF 667	-2.91523750E-10	-5.04441194E-12	2.50970855E-06	-7.11359570E-08	*AMF 667				
1354-	*AMF 668	-8.55610161E-11	-1.06984040E-12	9.87053266E-08	-5.10753307E-08	*AMF 668				
1355-	*AMF 669				-3.15243582E-08	*AMF 669				

Volume II

SORTED BULK DATA ECHO

CARD
COUNT
1351- *AMF 669 -A.33031527E-11 -A.69361312E-11 2.4486804E-08 -3.01576435E-00 *AMF 670
1352- *AMF 670 -A.51281634E-11 -1.70017212E-13 -2.76859491E-09 -1.43259307E-08 *AMF 671
1353- *AMF 671 -5.15636764E-12 -1.10831110E-14 -5.23982413E-10
1354- DMI *MFLC 97 85 1.19499981E-01 *AMF 672
1355- *AMF 673 -5.67319029E-08 3.98354897E-08 -1.80198008E-08 4.93000507E-01 *AMF 674
1356- *AMF 674 -2.50752407E-07 1.55731243E-07 -8.61423928E-08 8.34789574E-01 *AMF 675
1357- *AMF 675 -4.17382751E-07 2.79555547E-07 -1.39040878E-07 1.21067142E 00 *AMF 676
1358- *AMF 676 -5.64042652E-07 3.79498317E-07 -1.95260955E-07 8.21061492E-01 *AMF 677
1359- *AMF 677 -4.16745515E-07 2.74070487E-07 -1.52929715E-07 4.82982993E-01 *AMF 678
1360- *AMF 678 -2.46425145E-07 1.41031080E-07 -9.20170464E-08 6.05616578E-01 *AMF 679
1361- *AMF 679 -3.12443035E-07 1.93063944E-07 -1.05038737E-07 4.42449629E-01 *AMF 680
1362- *AMF 680 -2.15377600E-07 1.22517747E-07 -7.21964852E-08 2.61354297E-01 *AMF 681
1363- *AMF 681 -1.20687325E-07 7.97073767E-08 -5.25547605E-08 2.56714660E-01 *AMF 682
1364- *AMF 682 -1.39246866E-07 6.54367227E-08 -4.48312889E-08 1.21948540E-01 *AMF 683
1365- *AMF 683 -5.54678156E-08 3.53936223E-04 -2.53849150E-08
DMI *MFLC 98 85 -6.02237265E-03 *AMF 684
1366- *AMF 685 5.70815857E-05 -1.16041690E-10 -2.34791075E-10 -2.48214405E-07 *AMF 685
1367- *AMF 686 5.55785583E-04 -1.06730351E-09 -2.62405764E-09 -2.48062314E-07 *AMF 686
1368- *AMF 687 7.31279328E-03 -9.13808407E-09 -1.97977315E-08 -5.84042652E-07 *AMF 687
1369- *AMF 688 6.32646250E-02 -4.07421190E-08 -1.76099030E-07 -4.11586427E-07 *AMF 688
1370- *AMF 689 5.85955009E-03 -7.02858571E-09 -1.57049556E-08 -2.42937631E-07 *AMF 689
1371- *AMF 690 1.45113692E-03 -1.88130644E-09 -3.96821420E-09 -3.05054073E-07 *AMF 690
1372- *AMF 691 8.21882160E-04 -1.02271303E-09 -2.24360375E-09 -2.23001507E-07 *AMF 691
1373- *AMF 692 2.41915026E-04 -1.04758885E-10 -6.47051079E-10 -1.35252492E-07 *AMF 692
1374- *AMF 693 1.21786055E-04 -1.45618655E-10 -3.50944385E-10 -1.29410921E-07 *AMF 693
1375- *AMF 694 7.06102503E-05 -8.64363719E-11 -1.93566871E-10 -6.14849114E-08 *AMF 694
1376- *AMF 695 1.46143775E-05 -1.77621806E-11 -4.03244521E-11
DMI *MFLC 99 85 3.88276682E-08 *AMF 695
1377- *AMF 697 -1.18088192E-10 -9.39079746E-06 -2.03978223E-11 1.60126149E-07 *AMF 696
1378- *AMF 698 -1.06175069E-09 1.11468209E-04 7.12849640E-11 2.71208592E-07 *AMF 697
1379- *AMF 699 -5.13402332E-09 9.17957065E-06 -1.94631668E-09 3.79498317E-07 *AMF 700
1380- *AMF 700 -4.07421190E-08 3.79550047E-02 -3.25723448E-08 2.66556684E-07 *AMF 701
1381- *AMF 701 -7.11639445E-09 2.07493082E-04 -1.86315185E-09 1.56912961E-07 *AMF 702
1382- *AMF 702 -1.85832465E-09 5.10600421E-06 -1.47116613E-10 1.96778493E-07 *AMF 703
1383- *AMF 703 -1.02070015E-09 -3.29495112E-06 -2.02111661E-11 1.43740433E-07 *AMF 704
1384- *AMF 704 -3.02079117E-10 -5.51770557E-07 4.96567644E-14 8.71849579E-08 *AMF 705
1385- *AMF 705 -1.52600252E-10 -3.00384897E-07 2.89412483E-13 8.34040179E-08 *AMF 706
1386- *AMF 706 -8.64574775E-11 -1.54075906E-07 2.94853063E-13 3.96195219E-08 *AMF 707
1387- *AMF 707 -1.82950460E-11 -3.84627086E-09 4.14099500E-15
DMI *MFLC 100 85 -2.07045829E-09 *AMF 708
1388- *AMF 709 -2.32776655E-10 -2.03788614E-11 -2.36241613E-05 -8.52694484E-08 *AMF 709
1389- *AMF 710 -2.62336064E-09 6.93406305E-11 1.76804606E-04 -1.45210151E-07 *AMF 710
1390- *AMF 711 -1.97215627E-08 -1.96810990E-09 -1.17256818E-03 -1.95260952E-07 *AMF 711
1391- *AMF 712 -1.76099030E-07 -3.25723448E-08 2.53424495E-02 -1.42659758E-07 *AMF 712
1392- *AMF 713 -1.57846145E-08 -1.81881399E-09 -8.76411097E-04 -8.36799359E-08 *AMF 713
1393- *AMF 714 -4.04091236E-09 -1.48068072E-10 -8.32610240E-05 -1.04872527E-07 *AMF 714
1394- *AMF 715 -2.23438090E-09 -2.09658541E-11 -1.63196338E-05 -7.66106609E-08 *AMF 715
1395- *AMF 716 -6.58181953E-10 2.98264767E-14 -6.33008905E-07 -4.64657646E-08 *AMF 716
1396- *AMF 717 -2.31384475E-10 2.86437974E-13 -1.72288883E-07 -4.44506227E-08 *AMF 717
1397- *AMF 718 -1.92126287E-10 2.97913007E-11 4.78508166E-09 -2.11154507E-08 *AMF 718
1398- *AMF 719 -1.92126287E-10 2.97913007E-11 4.78508166E-09 -2.11154507E-08 *AMF 719

SORTED BULK DATA ECHO									
CARD	1	2	3	4	5	6	7	8	9
COUNT	1	2	3	4	5	6	7	8	9
1401-	*AMF 719	-3.9759778E-11	6.3087149E-15	2.95487701E-09	85	8.33081603E-02	*AMF 720		
1402-	DMI	*MFLD	101						
1403-	*AMF 721	-4.05660394E-08	2.77680305E-03	-1.25510553E-08		3.43633831E-01	*AMF 721		
1404-	*AMF 722	-1.75019011E-07	1.08580991E-07	-6.01259358E-08		5.60755532E-01	*AMF 722		
1405-	*AMF 723	-2.49218733E-07	1.52752783E-07	-9.61876481E-08		8.21061492E-01	*AMF 723		
1406-	*AMF 724	-4.11566427E-07	2.66656684E-07	-1.42659758E-07		7.55516874E-01	*AMF 724		
1407-	*AMF 725	-3.73867181E-07	2.42510225E-07	-1.31891425E-07		4.35583711E-01	*AMF 725		
1408-	*AMF 726	-2.19340450E-07	1.25656811E-07	-8.20970172E-08		5.43552399E-01	*AMF 726		
1409-	*AMF 727	-2.78654088E-07	1.77297352E-07	-9.41106484E-08		3.96711290E-01	*AMF 727		
1410-	*AMF 728	-1.56239455E-07	1.09791520E-07	-6.47242473E-08		2.40584612E-01	*AMF 728		
1411-	*AMF 729	-1.07563842E-07	7.14345560E-08	-4.71137353E-08		2.30114400E-01	*AMF 729		
1412-	*AMF 730	-1.24773464E-07	5.86485385E-08	-4.01856681E-08		1.09302938E-01	*AMF 730		
1413-	*AMF 731	-5.32735953E-08	3.17231460E-08	-2.27528204E-08		*AMF 731			
1414-	DMI	*MFLC	102						
1415-	*AMF 732	8.78717765E-06	-9.70936439E-12	-2.46623139E-11		-4.27322391E-08	*AMF 732		
1416-	*AMF 733	9.57088341E-05	-1.27212976E-10	-2.56046961E-10		-1.76240064E-07	*AMF 733		
1417-	*AMF 734	7.33913155E-04	-8.34599731E-10	-2.02978193E-09		-4.18748551E-07	*AMF 734		
1418-	*AMF 735	5.65955009E-03	-7.11534485E-09	-1.57846145E-08		-3.73867181E-07	*AMF 735		
1419-	*AMF 736	3.43423486E-02	-2.33014068E-08	-9.55819914E-08		-2.20073332E-07	*AMF 736		
1420-	*AMF 737	8.36516917E-03	-7.21446725E-09	-2.26056365E-08		-2.77057950E-07	*AMF 737		
1421-	*AMF 738	4.53599170E-03	-4.59959065E-09	-1.24464776E-08		-2.02962497E-07	*AMF 738		
1422-	*AMF 739	1.32873119E-03	-1.53725587E-09	-3.55743768E-09		-1.23074074E-07	*AMF 739		
1423-	*AMF 740	6.67588232E-04	-7.43115125E-10	-1.92596717E-09		-1.17849366E-07	*AMF 740		
1424-	*AMF 741	3.66465364E-04	-4.56106264E-10	-1.05958264E-09		-5.60350124E-08	*AMF 741		
1425-	*AMF 742	7.95566801E-05	-9.64771874E-11	-2.20782198E-10		*AMF 742			
1426-	DMI	*MFLC	103						
1427-	*AMF 743	-9.85099849E-12	1.04006085E-06	3.49557163E-12		2.78155632E-08	*AMF 743		
1428-	*AMF 744	-1.27310315E-19	-8.96682655E-06	-1.8404570E-11		1.14740146E-07	*AMF 744		
1429-	*AMF 745	-8.24899245E-10	8.25093747E-05	6.51151355E-11		1.93875564E-07	*AMF 745		
1430-	*AMF 746	-7.02858571E-09	2.07493082E-04	-1.81881399E-09		2.42510225E-07	*AMF 746		
1431-	*AMF 747	-2.03014068E-08	2.14821950E-02	-1.08253309E-08		1.44140870E-07	*AMF 747		
1432-	*AMF 748	-7.02413414E-09	3.33130080E-03	-4.24307099E-09		1.81043731E-07	*AMF 748		
1433-	*AMF 749	-4.67000660E-09	1.01476093E-03	-1.60881045E-09		1.32338782E-07	*AMF 749		
1434-	*AMF 750	1.91081490E-04	1.11420140E-04	2.31353393E-10		8.03086095E-08	*AMF 750		
1435-	*AMF 751	-7.72695969E-10	5.31494661E-05	-9.72441155E-11		7.68254722E-08	*AMF 751		
1436-	*AMF 752	-4.64057205E-10	1.58224424E-05	-3.10038245E-11		3.64951518E-08	*AMF 752		
1437-	*AMF 753	-9.82028205E-11	6.40203154E-07	-1.28942007E-12		*AMF 753			
1438-	DMI	*MFLC	104						
1439-	*AMF 754	-2.42436660E-11	3.61412636E-12	3.43904594E-06		-1.54045434E-08	*AMF 754		
1440-	*AMF 755	-2.55705457E-10	-1.00224424E-11	-2.25027034E-05		-6.38087272E-08	*AMF 755		
1441-	*AMF 756	-2.06433470E-09	7.08124670E-11	1.41101098E-04		-1.07739027E-07	*AMF 756		
1442-	*AMF 757	-1.57049556E-08	-1.85315105E-09	-8.76411097E-04		-1.52929715E-07	*AMF 757		
1443-	*AMF 758	-9.55819814E-08	-1.48829530E-08	1.52279809E-02		-1.31891625E-07	*AMF 758		
1444-	*AMF 759	-2.25062920E-08	-4.11294018E-09	1.50713162E-04		-7.99406895E-08	*AMF 759		
1445-	*AMF 760	-1.22917321E-08	-1.55070512E-09	2.76346924E-04		-1.03747400E-07	*AMF 760		
1446-	*AMF 761	-2.59236707E-09	-2.36816788E-10	1.52885768E-05		-7.36433776E-08	*AMF 761		
1447-	*AMF 762	-1.80409749E-09	-9.81958268E-11	4.37548897E-06		-4.46614729E-08	*AMF 762		
1448-	*AMF 763	-1.04421161E-09	-3.14634430E-11	-3.08611654E-09		-4.27215454E-08	*AMF 763		
1449-	*AMF 764	-2.16129572E-10	-1.10506131E-12	-1.78231246E-08		-2.02924751E-08	*AMF 764		
1450-	DMI	*MFLC	105						
1451-	*AMF 765	-2.16129572E-10	-1.10506131E-12	-1.78231246E-08		4.90845849E-02	*AMF 765		

S O R T E D B U L K D A T A E C M O

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
1451-		*AMF 769	-2.41381066E-08	1.63609322E-08	-7.39524697E-09	2.02464402E-01	*AMF 770				
1452-		*AMF 770	-1.03132095E-07	6.39727205E-08	-3.54191485E-08	3.42133164E-01	*AMF 771				
1453-		*AMF 771	-1.72234309E-07	1.14160002E-07	-5.67048346E-08	4.82982993E-01	*AMF 772				
1454-		*AMF 772	-2.42937631E-07	1.56912961E-07	-8.36799359E-08	4.35581711E-01	*AMF 773				
1455-		*AMF 773	-2.20071332E-07	1.44140670E-07	-7.99408895E-08	2.88298786E-01	*AMF 774				
1456-		*AMF 774	-1.42004865E-07	8.05810600E-08	-5.06980662E-08	3.51194501E-01	*AMF 775				
1457-		*AMF 775	-1.77466559E-07	1.13814792E-07	-6.01436909E-08	2.55121649E-01	*AMF 776				
1458-		*AMF 776	-1.25808924E-07	7.05113052E-08	-4.15853982E-08	1.54633284E-01	*AMF 777				
1459-		*AMF 777	-6.91599844E-08	4.59765506E-08	-3.02708187E-08	1.47799194E-01	*AMF 778				
1460-		*AMF 778	-8.00321232E-08	3.76547650E-08	-2.58106745E-08	7.01823235E-02	*AMF 779				
1461-		*AMF 779	-3.41840095E-08	2.03686774E-08	-1.46092702E-08	*AMF 780					
1462-		DNI	*MFLC	106	85	-2.51060257E-08	*AMF 781				
1463-		*AMF 781	2.29725447E-06	-2.62765504E-12	-6.33936393E-12	-1.03551259E-07	*AMF 782				
1464-		*AMF 782	2.45672735E-05	-3.25240390E-11	-6.74713341E-11	-1.74926811E-07	*AMF 783				
1465-		*AMF 783	1.91509767E-04	-2.25392030E-10	-5.25425703E-10	-2.46425145E-07	*AMF 784				
1466-		*AMF 784	1.49113592E-03	-1.85932469E-09	-4.04091338E-09	-2.19340450E-07	*AMF 785				
1467-		*AMF 785	8.36516917E-03	-7.02411416E-09	-2.29662920E-08	-1.42004365E-07	*AMF 786				
1468-		*AMF 786	1.35429444E-02	-7.93786725E-09	-3.75308886E-08	-1.77079471E-07	*AMF 787				
1469-		*AMF 787	6.53626072E-03	-5.45248113E-09	-1.91102039E-08	-1.29740783E-07	*AMF 788				
1470-		*AMF 788	1.84668112E-03	-1.98033168E-09	-4.95467134E-08	-7.86260443E-08	*AMF 789				
1471-		*AMF 789	5.18425620E-04	-9.60265645E-10	-2.65111022E-09	-7.53583356E-08	*AMF 790				
1472-		*AMF 790	5.22835413E-04	-6.00280270E-10	-1.43341761E-09	-3.58516345E-08	*AMF 791				
1473-		*AMF 791	1.68399399E-04	-1.29972616E-10	-2.99171576E-10	*AMF 792					
1474-		DNI	*MFLC	107	85	1.43328194E-08	*AMF 793				
1475-		*AMF 793	-2.72581437E-12	1.91473008E-07	1.04148840E-13	5.91210672E-08	*AMF 794				
1476-		*AMF 794	-3.32130745E-11	-1.66949030E-06	8.12493761E-14	9.98982729E-08	*AMF 795				
1477-		*AMF 795	-2.28147945E-10	1.43072175E-05	-7.30554679E-12	1.41031080E-07	*AMF 796				
1478-		*AMF 796	-1.80130644E-09	5.10600421E-06	-1.48068072E-10	1.25656681E-07	*AMF 797				
1479-		*AMF 797	-7.21446725E-09	3.33130089E-03	-4.11298018E-09	8.05810600E-08	*AMF 798				
1480-		*AMF 798	-7.93786725E-09	9.25395579E-03	-7.22551974E-09	1.01380010E-07	*AMF 799				
1481-		*AMF 799	-5.81165692E-09	2.67313677E-03	-3.35527872E-09	7.43399937E-08	*AMF 800				
1482-		*AMF 800	-1.99401340E-09	3.43549531E-04	-5.75136827E-10	4.51005064E-08	*AMF 801				
1483-		*AMF 801	-1.02774100E-09	1.76176779E-04	-2.33075781E-10	4.31385168E-08	*AMF 802				
1484-		*AMF 802	-6.26751930E-10	1.89030080E-08	-7.58171432E-11	2.04928448E-08	*AMF 803				
1485-		*AMF 803	-1.35595523E-10	1.63454570E-05	-3.27808961E-12	*AMF 804					
1486-		DNI	*MFLC	108	85	-9.34655020E-09	*AMF 805				
1487-		*AMF 805	-6.17906854E-12	9.40041914E-14	2.91075708E-07	-3.95544006E-08	*AMF 806				
1488-		*AMF 806	-6.63812200E-11	2.02273759E-13	-1.92699463E-06	-6.51419896E-08	*AMF 807				
1489-		*AMF 807	-5.13075804E-10	-7.79461305E-12	1.25719462E-05	-9.20170464E-08	*AMF 808				
1490-		*AMF 808	-3.56821420E-08	-1.47186638E-10	-8.32610240E-05	-8.20970172E-08	*AMF 809				
1491-		*AMF 809	-2.26056365E-08	-4.24890700E-09	1.50713162E-03	-5.06980662E-08	*AMF 810				
1492-		*AMF 810	-3.75308886E-08	7.22551974E-09	6.83079660E-03	-6.61344189E-08	*AMF 811				
1493-		*AMF 811	-1.76144397E-08	-3.27940763E-03	1.24011585E-03	-4.85459190E-08	*AMF 812				
1494-		*AMF 812	-4.54016561E-08	-5.73914303E-10	7.11917053E-05	-2.94365172E-08	*AMF 813				
1495-		*AMF 813	-2.45242537E-09	-2.38641995E-10	2.05774339E-05	-2.81440045E-08	*AMF 814				
1496-		*AMF 814	-1.39559453E-09	-7.74169340E-11	-1.22077799E-08	-1.33641933E-08	*AMF 815				
1497-		*AMF 815	-2.85117443E-10	-3.37588893E-12	-5.79634793E-08	*AMF 816					
1498-		DNI	*MFLC	109	85	6.15712553E-02	*AMF 817				
1499-		*AMF 817	-3.02792778E-08	2.05230677E-08	-9.27759913E-09	2.5396835E-01	*AMF 818				
1500-		*AMF 818	-1.29374826E-07	8.22400249E-08	-4.4240879E-09	4.29155171E-01	*AMF 819				

EXTERNAL YANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
*AMF 819	-2.16097476E-07	1.43201646E-07	1.96758492E-07	-1.04872527E-07	6.05616570E-01	*AMF 820	6.05616570E-01	*AMF 821	5.43552399E-01	*AMF 822	3.51194901E-01
*AMF 820	-3.05054073E-07	1.96758492E-07	1.81043731E-07	-1.00747400E-07	6.05616570E-01	*AMF 823	3.51194901E-01	*AMF 824	4.89867210E-01	*AMF 825	3.48937690E-01
*AMF 821	-2.77657950E-07	1.81043731E-07	1.01380010E-07	-6.61344188E-08	6.05616570E-01	*AMF 826	3.48937690E-01	*AMF 827	2.11037132E-01	*AMF 828	2.01139467E-01
*AMF 822	-1.77679471E-07	1.01380010E-07	1.54168788E-07	-7.90562353E-08	6.05616570E-01	*AMF 829	2.01139467E-01	*AMF 830	9.54154730E-02	*AMF 831	9.54154730E-02
*AMF 823	-2.44762532E-07	1.54168788E-07	9.59681542E-08	-5.66885561E-08	6.05616570E-01	*AMF 832	9.54154730E-02	*AMF 833	3.48937690E-01	*AMF 834	2.11037132E-01
*AMF 824	-1.76948797E-07	9.59681542E-08	6.23824121E-08	-4.12336263E-08	6.05616570E-01	*AMF 835	3.48937690E-01	*AMF 836	2.01139467E-01	*AMF 837	9.54154730E-02
*AMF 825	-9.3695276E-08	6.23824121E-08	5.13982432E-08	-3.51265577E-08	6.05616570E-01	*AMF 838	2.01139467E-01	*AMF 839	9.54154730E-02	*AMF 840	3.48937690E-01
*AMF 826	-1.08631127E-07	5.13982432E-08	2.76803992E-08	-1.98622239E-08	6.05616570E-01	*AMF 841	9.54154730E-02	*AMF 842	3.48937690E-01	*AMF 843	2.11037132E-01
*AMF 827	-4.64158951E-08	2.76803992E-08	1.10	85	6.05616570E-01	*AMF 844	3.48937690E-01	*AMF 845	2.01139467E-01	*AMF 846	9.54154730E-02
*MFLC						*AMF 847	2.01139467E-01	*AMF 848	9.54154730E-02	*AMF 849	3.48937690E-01
*AMF 829	1.28012016E-06	-1.51670863E-12	-3.50439082E-12	-1.31163063E-07	6.05616570E-01	*AMF 850	9.54154730E-02	*AMF 851	3.48937690E-01	*AMF 852	2.11037132E-01
*AMF 830	1.38994859E-05	-1.77303311E-11	-3.77154002E-11	-2.21606058E-07	6.05616570E-01	*AMF 853	2.11037132E-01	*AMF 854	9.54154730E-02	*AMF 855	3.48937690E-01
*AMF 831	1.06658005E-04	-1.29170797E-10	-2.91523259E-10	-3.12447035E-07	6.05616570E-01	*AMF 856	9.54154730E-02	*AMF 857	3.48937690E-01	*AMF 858	2.01139467E-01
*AMF 832	8.21082160E-04	-1.01070019E-09	-2.23438090E-09	-2.78854088E-07	6.05616570E-01	*AMF 859	3.48937690E-01	*AMF 860	2.01139467E-01	*AMF 861	9.54154730E-02
*AMF 833	4.52595170E-03	-4.67000660E-09	-1.22917321E-08	-1.78744859E-07	6.05616570E-01	*AMF 862	2.01139467E-01	*AMF 863	9.54154730E-02	*AMF 864	3.48937690E-01
*AMF 834	6.52828072E-03	-5.81165693E-09	-1.76144397E-08	-2.44762532E-07	6.05616570E-01	*AMF 865	9.54154730E-02	*AMF 866	3.48937690E-01	*AMF 867	2.01139467E-01
*AMF 835	2.10703909E-02	-1.34365758E-09	-5.88701248E-08	-1.77979075E-07	6.05616570E-01	*AMF 868	3.48937690E-01	*AMF 869	2.01139467E-01	*AMF 870	9.54154730E-02
*AMF 836	5.47001331E-03	-5.28334354E-09	-1.47266402E-08	-1.07629376E-07	6.05616570E-01	*AMF 871	9.54154730E-02	*AMF 872	3.48937690E-01	*AMF 873	2.01139467E-01
*AMF 837	2.65220111E-03	-2.54567032E-09	-7.66682007E-09	-1.03148239E-07	6.05616570E-01	*AMF 874	3.48937690E-01	*AMF 875	2.01139467E-01	*AMF 876	9.54154730E-02
*AMF 838	1.44844485E-03	-1.60795898E-09	-3.97059807E-09	-4.91494561E-08	6.05616570E-01	*AMF 877	2.01139467E-01	*AMF 878	9.54154730E-02	*AMF 879	3.48937690E-01
*AMF 839	3.01530352E-04	-3.51831031E-10	-8.32143243E-10	-2.01364259E-08	6.05616570E-01	*AMF 880	9.54154730E-02	*AMF 881	3.48937690E-01	*AMF 882	2.01139467E-01
*MFLC						*AMF 883	3.48937690E-01	*AMF 884	2.01139467E-01	*AMF 885	9.54154730E-02
*AMF 841	-1.53419898E-12	6.46339231E-08	-2.96292735E-14	8.30589215E-08	6.05616570E-01	*AMF 886	2.01139467E-01	*AMF 887	9.54154730E-02	*AMF 888	3.48937690E-01
*AMF 842	-1.78592280E-11	-5.69178667E-07	4.45293439E-13	1.40350267E-07	6.05616570E-01	*AMF 889	9.54154730E-02	*AMF 890	3.48937690E-01	*AMF 891	2.01139467E-01
*AMF 843	-1.27656388E-10	4.59353836E-06	-5.0441194E-12	1.98063844E-07	6.05616570E-01	*AMF 892	3.48937690E-01	*AMF 893	2.01139467E-01	*AMF 894	9.54154730E-02
*AMF 844	-1.02271303E-09	-3.28895112E-06	-2.09658541E-11	1.77297352E-07	6.05616570E-01	*AMF 896	9.54154730E-02	*AMF 897	3.48937690E-01	*AMF 898	2.01139467E-01
*AMF 845	-4.59556555E-09	1.01476093E-03	-1.55076512E-09	1.13814792E-07	6.05616570E-01	*AMF 899	3.48937690E-01	*AMF 900	2.01139467E-01	*AMF 901	9.54154730E-02
*AMF 846	-5.45248113E-09	2.67313677E-03	-3.27940763E-09	1.54168788E-07	6.05616570E-01	*AMF 902	9.54154730E-02	*AMF 903	3.48937690E-01	*AMF 904	2.01139467E-01
*AMF 847	-1.34365758E-09	1.37952156E-02	-1.13523591E-08	1.13323665E-07	6.05616570E-01	*AMF 906	3.48937690E-01	*AMF 907	2.01139467E-01	*AMF 908	9.54154730E-02
*AMF 848	-5.05767517E-09	1.74277346E-03	-2.59229800E-09	6.87497277E-08	6.05616570E-01	*AMF 909	9.54154730E-02	*AMF 910	3.48937690E-01	*AMF 911	2.01139467E-01
*AMF 849	-2.62777244E-09	6.72633061E-04	-1.06101217E-09	6.56901975E-08	6.05616570E-01	*AMF 912	3.48937690E-01	*AMF 913	2.01139467E-01	*AMF 914	9.54154730E-02
*AMF 850	-1.64708427E-09	1.75264548E-04	-3.49417399E-10	3.12016937E-08	6.05616570E-01	*AMF 916	9.54154730E-02	*AMF 917	3.48937690E-01	*AMF 918	2.01139467E-01
*AMF 851	-3.62108021E-10	7.83665382E-06	-1.64643240E-11	1.08700778E-08	6.05616570E-01	*AMF 920	3.48937690E-01	*AMF 921	2.01139467E-01	*AMF 922	9.54154730E-02
*MFLC						*AMF 924	9.54154730E-02	*AMF 925	3.48937690E-01	*AMF 926	2.01139467E-01
*AMF 853	-2.90364009E-12	-3.54167887E-14	5.98943757E-08	-4.40449561E-08	6.05616570E-01	*AMF 928	3.48937690E-01	*AMF 929	2.01139467E-01	*AMF 930	9.54154730E-02
*AMF 854	-3.79127146E-11	4.97855500E-13	-3.94021470E-07	-7.44251452E-08	6.05616570E-01	*AMF 932	9.54154730E-02	*AMF 933	3.48937690E-01	*AMF 934	2.01139467E-01
*AMF 855	-2.91820568E-10	-5.35232362E-12	2.50958055E-06	-1.05038737E-07	6.05616570E-01	*AMF 936	3.48937690E-01	*AMF 937	2.01139467E-01	*AMF 938	9.54154730E-02
*AMF 856	-2.24360375E-09	-2.92111648E-11	-1.63196382E-05	-9.41106464E-08	6.05616570E-01	*AMF 940	9.54154730E-02	*AMF 941	3.48937690E-01	*AMF 942	2.01139467E-01
*AMF 857	-1.24464776E-08	-1.60881085E-09	2.76346242E-04	-6.01436509E-08	6.05616570E-01	*AMF 944	3.48937690E-01	*AMF 945	2.01139467E-01	*AMF 946	9.54154730E-02
*AMF 858	-1.81182038E-08	-3.35527872E-09	1.24011585E-03	-7.90562353E-08	6.05616570E-01	*AMF 948	9.54154730E-02	*AMF 949	3.48937690E-01	*AMF 950	2.01139467E-01
*AMF 859	-5.66701248E-08	-1.13523591E-08	9.88379225E-03	-6.02479985E-08	6.05616570E-01	*AMF 952	9.54154730E-02	*AMF 953	3.48937690E-01	*AMF 954	2.01139467E-01
*AMF 860	-1.50539137E-08	-2.63219979E-09	5.51045453E-04	-3.65296600E-08	6.05616570E-01	*AMF 956	3.48937690E-01	*AMF 957	2.01139467E-01	*AMF 958	9.54154730E-02
*AMF 861	-7.25712823E-09	-1.10380024E-09	1.52955525E-04	-3.48835556E-08	6.05616570E-01	*AMF 960	9.54154730E-02	*AMF 961	3.48937690E-01	*AMF 962	2.01139467E-01
*AMF 862	-3.95763047E-09	-1.61206620E-10	4.02364832E-06	-1.65478973E-08	6.05616570E-01	*AMF 964	3.48937690E-01	*AMF 965	2.01139467E-01	*AMF 966	9.54154730E-02
*AMF 863	-8.22909163E-10	-1.70582715E-11	-7.22626112E-07	4.4982964E-02	6.05616570E-01	*AMF 968	9.54154730E-02	*AMF 969	3.48937690E-01	*AMF 970	2.01139467E-01
*MFLC						*AMF 972	3.48937690E-01	*AMF 973	2.01139467E-01	*AMF 974	9.54154730E-02
*AMF 865	-2.21234016E-08	1.49949493E-08	-6.77459191E-09	1.85559154E-01	6.05616570E-01	*AMF 976	9.54154730E-02	*AMF 977	3.48937690E-01	*AMF 978	2.01139467E-01
*AMF 866	-9.45283387E-08	5.36306115E-08	-3.24606017E-08	3.13555408E-01	6.05616570E-01	*AMF 980	9.54154730E-02	*AMF 981	3.48937690E-01	*AMF 982	2.01139467E-01
*AMF 867	-1.57905561E-07	1.04629006E-07	-5.19753367E-09	4.42449629E-01	6.05616570E-01	*AMF 984	9.54154730E-02	*AMF 985	3.48937690E-01	*AMF 986	2.01139467E-01
*AMF 868	-2.23001507E-07	1.43746453E-07	-7.66106609E-08	3.96711290E-01	6.05616570E-01	*AMF 988	9.54154730E-02	*AMF 989	3.48937690E-01	*AMF 990	2.01139467E-01
*AMF 869	-2.23001507E-07	1.43746453E-07	-7.66106609E-08	3.96711290E-01	6.05616570E-01	*AMF 992	9.54154730E-02	*AMF 993	3.48937690E-01	*AMF 994	2.01139467E-01

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
1551-	*AMF	869	-2.02962497E-07	1.32398782E-07	-7.36433775E-08	2.55121648E-01	*AMF	870		
1552-	*AMF	870	-1.29740783E-07	7.43359937E-08	-4.85459388E-08	3.48937690E-01	*AMF	871		
1553-	*AMF	871	-1.77575075E-07	1.13323665E-07	-6.02479986E-08	2.92934000E-01	*AMF	872		
1554-	*AMF	872	-1.39302927E-07	7.67540769E-08	-4.44921149E-08	1.74048185E-01	*AMF	873		
1555-	*AMF	873	-7.56349436E-08	5.00478343E-08	-3.29961138E-08	1.62534773E-01	*AMF	874		
1556-	*AMF	874	-8.65587957E-08	4.19267482E-08	-2.82661645E-08	7.67656565E-02	*AMF	875		
1557-	*AMF	875	-2.71744657E-08	2.22519816E-08	-1.59814775E-08		*AMF	876		
1558-	DMI		*MFLC	114	85	-2.23153833E-08	*AMF	877		
1559-	*AMF	877	3.77952176E-07	-4.61147071E-13	-1.03087591E-12	-9.20452976E-08	*AMF	878		
1560-	*AMF	878	4.16285247E-06	-5.17096695E-12	-1.11362300E-11	-1.55527061E-07	*AMF	879		
1561-	*AMF	879	3.14859208E-05	-3.89200583E-11	-8.59610161E-11	-2.19377000E-17	*AMF	880		
1562-	*AMF	880	2.41915026E-04	-3.93079117E-10	-6.58131553E-10	-1.96237455E-07	*AMF	881		
1563-	*AMF	881	1.32873115E-03	-1.51024149E-09	-3.59236707E-09	-1.25808924E-07	*AMF	882		
1564-	*AMF	882	1.84668112E-03	-1.99401340E-09	-4.94016561E-09	-1.70948397E-07	*AMF	883		
1565-	*AMF	883	5.47801321E-03	-5.05767517E-09	-1.50539137E-08	-1.39302927E-07	*AMF	884		
1566-	*AMF	884	1.47013366E-02	-9.94598529E-03	-4.0360360E-08	-8.29979854E-08	*AMF	885		
1567-	*AMF	885	6.53460622E-03	-4.19051815E-09	-1.91753434E-08	-7.90892045E-08	*AMF	886		
1568-	*AMF	886	3.04521170E-01	-2.81811241E-09	-8.38599997E-04	-3.78007279E-08	*AMF	887		
1569-	*AMF	887	6.45792810E-04	-7.22665039E-10	-1.78184800E-09		*AMF	888		
1570-	DMI		*MFLC	115	85	1.24570327E-08	*AMF	889		
1571-	*AMF	889	-4.72911424E-13	8.55937188E-09	-1.52655768E-14	5.13827345E-08	*AMF	890		
1572-	*AMF	890	-5.26108324E-12	-7.55055112E-08	-1.16619388E-13	8.68253665E-08	*AMF	891		
1573-	*AMF	891	-3.90153049E-11	6.18402564E-07	-1.06984040E-12	1.22517747E-07	*AMF	892		
1574-	*AMF	892	-3.04758885E-10	-5.51770597E-07	2.9884767E-14	1.09791520E-07	*AMF	893		
1575-	*AMF	893	-1.53725587E-09	1.31028390E-04	-2.36816788E-10	7.05113052E-08	*AMF	894		
1576-	*AMF	894	-1.58033168E-09	3.43545531E-04	-5.73014303E-10	9.58605142E-08	*AMF	895		
1577-	*AMF	895	-5.28334354E-09	1.74277346E-03	-2.63219979E-09	7.67540769E-08	*AMF	896		
1578-	*AMF	896	-8.94598529E-09	9.57347453E-03	-8.20900032E-09	4.67863188E-08	*AMF	897		
1579-	*AMF	897	-4.65056615E-09	3.51828481E-03	-3.43984907E-09	4.45615740E-08	*AMF	898		
1580-	*AMF	898	-2.07887271E-09	8.94891022E-04	-1.33470368E-09	2.12311768E-08	*AMF	899		
1581-	*AMF	899	-7.50234541E-10	6.15121680E-05	-1.25841212E-10		*AMF	900		
1582-	DMI		*MFLC	116	85	-7.34058148E-09	*AMF	901		
1583-	*AMF	901	-1.00787434E-12	1.62246044E-14	2.11243267E-09	3.02781967E-08	*AMF	902		
1584-	*AMF	902	-1.06594066E-11	1.19739394E-13	-1.41816695E-09	5.11813876E-08	*AMF	903		
1585-	*AMF	903	-8.42214631E-11	-1.10045046E-12	9.87653266E-08	7.21964453E-08	*AMF	904		
1586-	*AMF	904	-6.47051079E-10	4.95567644E-14	-6.33008953E-07	-6.47242471E-08	*AMF	905		
1587-	*AMF	905	-3.55743768E-09	-2.11359599E-10	1.52885768E-05	-4.15853982E-08	*AMF	906		
1588-	*AMF	906	-4.55467134E-09	-5.73136827E-10	7.11917091E-05	-5.66085561E-09	*AMF	907		
1589-	*AMF	907	-1.47258402E-08	-2.59220803E-09	5.51085453E-04	-4.4921149E-08	*AMF	908		
1590-	*AMF	908	-4.03683360E-08	-8.20900032E-09	6.83207810E-03	-2.74341581E-08	*AMF	909		
1591-	*AMF	909	-1.75770665E-08	-3.54071903E-09	2.25096173E-03	-2.63837840E-08	*AMF	910		
1592-	*AMF	910	-8.18480572E-09	-1.39879641E-09	2.43433271E-04	-1.25282007E-08	*AMF	911		
1593-	*AMF	911	-1.72712467E-09	-1.30432595E-10	-3.83782117E-06		*AMF	912		
1594-	DMI		*MFLC	117	85	2.72853412E-02	*AMF	913		
1595-	*AMF	913	-1.34184042E-08	9.39401912E-09	-4.11138856E-09	1.12546384E-01	*AMF	914		
1596-	*AMF	914	-5.73318568E-08	3.55600551E-09	-1.96882191E-08	1.90178871E-01	*AMF	915		
1597-	*AMF	915	-5.57737322E-08	6.34602202E-09	-1.15243582E-08	2.68354297E-01	*AMF	916		
1598-	*AMF	916	-1.25252492E-07	8.71849579E-08	-4.44669764E-08	2.40584612E-01	*AMF	917		
1599-	*AMF	917	-1.23074074E-07	8.93085095E-09	-4.46634729E-04	1.54633284E-01	*AMF	918		
1600-	*AMF	918	-7.86260443E-08	4.51075064E-08	-2.94365172E-08	2.11017132E-01	*AMF	919		

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
1501	*AMF	919	-1.07629376E-07	6.37497277E-08	-3.65296060E-08	1.74048185E-01	*AMF	920		
1502	*AMF	920	-8.25579854E-08	4.67863188E-08	-2.74341581E-08	1.10184968E-01	*AMF	921		
1503	*AMF	921	-4.66062566E-08	3.12040953E-08	-2.03205559E-08	1.0688994E-01	*AMF	922		
1504	*AMF	922	-5.37475723E-08	2.53462993E-08	-1.74590156E-08	4.73876670E-02	*AMF	923		
1505	*AMF	923	-2.26681110E-08	1.37325564E-08	-9.86642590E-09		*AMF	924		
DM1	*MFLC	118								
1506	*AMF	925	1.90437561E-07	-2.33496707E-13	-5.19127005E-13	-1.22757484E-08	*AMF	925		
1507	*AMF	926	2.06714139E-06	-1.56969477E-12	-5.61097349E-12	-5.66344087E-08	*AMF	926		
1508	*AMF	927	1.56639741E-05	-1.59210409E-11	-4.33031527E-11	-8.5562803E-08	*AMF	927		
1509	*AMF	928	1.21786055E-04	-1.52600252E-10	-3.31384475E-10	-1.07963842E-07	*AMF	928		
1510	*AMF	929	6.67588323E-04	-7.72895969E-10	-1.80499349E-09	-6.91999844E-08	*AMF	929		
1511	*AMF	930	5.818425620E-04	-1.32774100E-09	-2.45242537E-09	-9.38999278E-08	*AMF	930		
1512	*AMF	931	2.65320111E-03	-2.62777244E-09	-7.25712623E-09	-7.56347436E-08	*AMF	931		
1513	*AMF	932	6.52460622E-03	-4.65056615E-09	-1.75770865E-08	-6.6052566E-08	*AMF	932		
1514	*AMF	933	5.80589473E-03	-3.37129899E-09	-1.68573635E-08	-4.41291661E-08	*AMF	933		
1515	*AMF	934	2.32159719E-03	-2.32814321E-09	-6.37732711E-09	-2.1147508E-08	*AMF	934		
1516	*AMF	935	4.74588716E-04	-5.23577626E-10	-1.31978814E-09		*AMF	935		
DM1	*MFLC	119								
1517	*AMF	937	-2.27673132E-13	3.55264894E-09	-7.41677295E-15	8.10435807E-09	*AMF	937		
1518	*AMF	938	-2.51478526E-12	-3.14192015E-08	5.05918481E-14	3.342889245E-08	*AMF	938		
1519	*AMF	939	-1.86555280E-11	2.34736449E-07	-4.69361312E-13	5.64873233E-08	*AMF	939		
1520	*AMF	940	-1.45611865E-10	3.00384897E-07	2.86437974E-13	7.14345560E-08	*AMF	940		
1521	*AMF	941	-7.4311125E-10	5.311498663E-05	-9.81958681E-11	4.58765506E-08	*AMF	941		
1522	*AMF	942	-9.60265645E-13	1.36176779E-04	-2.34641955E-10	6.23824121E-08	*AMF	942		
1523	*AMF	943	-2.54537022E-09	6.72633061E-04	-1.10396024E-09	5.00478343E-08	*AMF	943		
1524	*AMF	944	-4.419061815E-09	3.51828483E-03	-3.64071905E-09	3.12040953E-08	*AMF	944		
1525	*AMF	945	-2.67125989E-09	3.91214341E-03	-2.77876655E-09	2.94942168E-08	*AMF	945		
1526	*AMF	946	-2.67496289E-09	8.19762400E-04	-1.11781762E-09	1.40526346E-08	*AMF	946		
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1529	*AMF	950	-5.54600457E-12	4.94124361E-14	-3.24659521E-09	-2.20411459E-08	*AMF	950		
1530	*AMF	951	-4.57060362E-11	-4.71456207E-13	2.44896894E-08	-3.72447282E-08	*AMF	951		
1531	*AMF	952	-3.589							

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SORTED BULK DATA ECHO

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1654- DMI *MFLC 122 85 -1.41714551E-08 *AMF 973
1655- *AMF 973 1.10556357E-07 -1.38966583E-13 -3.00284756E-13 -5.84540203E-08 *AMF 974
1656- *AMF 974 1.15992819E-06 -1.50388850E-12 -3.25213632E-12 -9.87716362E-08 *AMF 975
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1661- *AMF 979 1.44844851E-03 -1.64789427E-09 -3.95763067E-09 -8.69987957E-03 *AMF 980
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1664- *AMF 982 6.40913472E-03 -4.21446700E-07 -1.80510435E-08 -2.58285157E-08 *AMF 983
1665- *AMF 983 9.55177310E-04 -1.00278230E-03 -2.74848989E-09 *AMF 984
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1668- *AMF 986 -1.48957134E-12 -1.01642605E-08 1.61549372E-14 4.63746197E-08 *AMF 987
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1678- DMI *MFLC 124 85 -4.55835192E-14 *AMF 997
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1687- *AMF 1005 -6.37732711E-09 -1.11781762E-09 2.90461583E-04 -1.70803105E-08 *AMF 1006
1688- *AMF 1006 -1.80530435E-08 -3.46573725E-09 3.07063758E-03 -8.44032755E-09 *AMF 1007
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1691- *AMF 1009 -6.05790261E-09 4.13305656E-07 -1.86838300E-09 5.11455542E-02 *AMF 1010
1692- *AMF 1010 -2.60552078E-09 1.61603353E-08 -8.94712571E-09 8.64240276E-02 *AMF 1011
1693- *AMF 1011 -4.35261032E-08 2.38389046E-08 -1.43259307E-08 1.21940540E-01 *AMF 1012
1694- *AMF 1012 -6.14849114E-08 3.96195210E-08 -2.11154507E-08 1.09302938E-01 *AMF 1013
1695- *AMF 1013 -5.60158124E-08 3.64951518E-08 -2.02924753E-08 7.01823235E-02 *AMF 1014
1696- *AMF 1014 -3.58516345E-08 2.94928444E-08 -1.33641933E-08 9.54154730E-02 *AMF 1015
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1699- *AMF 1017 -2.11147509E-08 1.40526346E-08 -9.28312716E-09 4.83655632E-02 *AMF 1018
1700- *AMF 1018 -2.58285157E-08 1.22266783E-08 -8.44032755E-09 2.74055675E-02 *AMF 1019

SORTED BULK DATA ECHO

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1703- *AMF1021 2.28784103E-08 -2.99527316E-14 -6.16723469E-14 -2.49414677E-08 *AMF1022
1704- *AMF1022 2.48216491E-07 -3.14013297E-13 -6.70751540E-13 -4.21401826E-08 *AMF1023
1705- *AMF1023 1.56567971E-06 -2.39469122E-12 -5.19636764E-12 -5.94678156E-08 *AMF1024
1706- *AMF1024 1.46143775E-05 -1.82950450E-11 -3.97597788E-11 -5.32735953E-08 *AMF1025
1707- *AMF1025 7.55566801E-05 -9.82028209E-11 -2.16129573E-10 -3.41840085E-09 *AMF1026
1708- *AMF1026 1.08399399E-04 -1.35505523E-10 -2.89337443E-10 -4.64158951E-09 *AMF1027
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1714- DMI *MFLC 127 85
1715- *AMF1033 -2.94997825E-14 4.31160802E-11 -6.52249251E-16 1.48442076E-08 *AMF1033
1716- *AMF1034 -2.05282186E-13 -3.81521925E-10 -1.68464583E-15 2.50834411E-08 *AMF1035
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1718- *AMF1036 -1.77621806E-11 -3.84627086E-09 6.30871494E-15 3.17231468E-08 *AMF1037
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1720- *AMF1038 -1.25972616E-10 1.63454570E-06 -3.37588899E-12 2.76893992E-08 *AMF1039
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1727- *AMF1045 -6.18741169E-14 -9.69502688E-16 -1.53741049E-11 -2.58110711E-09 *AMF1045
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1739- *POU2 17 1
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1742- *APD 3 -6.06729111E-11 1.45691021E-11 -6.25622210E-12 -7.50610139E-04 *APD 2
1743- *APD 4 -3.66592944E-11 7.71444676E-12 -1.80319648E-12 -7.46702543E-04 *APD 3
1744- *APD 5 -2.26768326E-11 3.15467791E-12 -4.89373082E-13 -7.45557481E-04 *APD 4
1745- *APD 6 -1.74637110E-11 1.37953110E-12 -2.21955541E-13 -7.44902529E-04 *APD 5
1746- *APD 7 -1.38300555E-11 1.19429398E-12 -1.08957602E-13 -7.44292200E-04 *APD 6
1747- *APD 8 -9.58677801E-12 5.57776102E-13 -3.20770835E-14 -7.43997283E-04 *APD 7
1748- *APD 9 -6.97467811E-12 2.83747960E-13 -1.00520720E-14 -7.43735814E-04 *APD 8
1749- *APD 10 -1.13169630E-12 5.22057853E-15 -9.53694330E-18 -7.43745361E-04 *APD 9
1750- *APD 11 -3.70424438E-12 7.12387506E-14 -7.43138427E-16 *APD 10
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1755-	*APD	13	13	13	13	13	13	13	13	13	13
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1762-	*APD	13	13	13	13	13	13	13	13	13	13
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1798-	*APD	13	13	13	13	13	13	13	13	13	13
1799-	*APD	13	13	13	13	13	13	13	13	13	13
1800-	*APD	13	13	13	13	13	13	13	13	13	13

SORTED BULK DATA ECHO

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1302-	*APD	63	-3.511295574E-04	-1.74552620E-10	1.69579073E-11	6.60967281E-10	*APD	64			
1303-	*APD	64	-2.02237818E-04	-7.02054109E-11	4.80826750E-12	6.52488730E-10	*APD	65			
1304-	*APC	65	-1.22731566E-04	-2.81770163E-11	1.29456689E-12	6.50114407E-10	*APD	66			
1305-	*APD	66	-5.33905720E-05	-1.66246461E-11	5.81056199E-13	6.48807008E-10	*APD	67			
1306-	*APD	67	-7.4111671E-05	-1.04266422E-11	2.82452434E-13	6.47620624E-10	*APD	68			
1307-	*APC	68	-5.1161324E-05	-4.86631092E-12	8.36512933E-14	6.47058351E-10	*APD	69			
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1313-	*APC	74	9.51012824E-10	-5.36357285E-04	-6.97621960E-10	-5.50281376E-10	*APD	74			
1314-	*APD	75	4.50264048E-10	-1.78211462E-04	-1.69472659E-10	-4.73509566E-10	*APD	75			
1315-	*APC	76	2.59212873E-10	-7.08769658E-05	-4.80524707E-11	-4.54915439E-10	*APD	76			
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1318-	*APD	79	5.40509318E-11	-1.05263798E-05	-2.85066064E-12	-4.46546133E-10	*APD	79			
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1320-	*APC	81	4.76885539E-11	-2.50444009E-06	-2.6232715E-13	-4.45342874E-10	*APD	81			
1321-	*APC	82	7.7318805E-12	-4.61452636E-08	-2.48504855E-15	-4.45005356E-10	*APD	82			
1322-	*APC	83	2.523090604E-11	-6.28729197E-07	-1.93717859E-14	-4.45017800E-10	*APD	83			
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1327-	*APD	88	5.52205256E-10	1.40994381E-10	-2.86434806E-05	2.17421983E-10	*APD	88			
1328-	*APD	89	3.25722339E-10	5.65892480E-11	-7.7119117E-06	2.14633006E-10	*APD	89			
1329-	*APC	90	2.56871413E-10	3.33874872E-11	-3.46142861E-06	2.13852006E-10	*APD	90			
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1331-	*APD	92	1.40002231E-10	9.81327953E-12	-4.98321867E-07	2.13031676E-10	*APD	92			
1332-	*APD	93	1.01758546E-10	4.18204169E-12	-1.56369993E-07	2.12846851E-10	*APD	93			
1333-	*APD	94	1.65011764E-11	9.17957827E-14	-1.48110674E-13	2.12685605E-10	*APD	94			
1334-	*APD	95	5.44013932E-11	1.25072001E-12	-1.15472823E-08	2.12691511E-10	*APD	95			
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1344-	*APD	105	-2.11664950E-11	1.4355791E-12	-2.52289427E-13	-1.30869355E-03	*APD	105			
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1857- *APC 118 -7.94202242E-06 -9.07331266E-14 1.01777997E-16 5.97931038E-10 *APD 119
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1896- *APD 157 -5.56003652E-05 -1.16320460E-11 2.77582844E-13 5.61844793E-10 *APD 158
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EXTERNAL 'NK W. FLUID
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CARD	COUNT	1	2	3	4	5	6	7	8	9	10
1301	1301	*APD 162	-2.28195291E-04	-8.14418255E-11	3.84350971E-12	8.97938612E-10	*APD 163				
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1311	1311	*APD 172	7.75762921E-10	-4.54558758E-04	-5.85741677E-10	-5.24027932E-10	*APD 172				
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1314	1314	*APD 175	2.11845378E-10	-4.18107504E-05	-2.69955308E-11	-4.47923032E-10	*APD 174				
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1347	1347	*APC 208	-2.85771909E-04	-1.29533897E-10	8.39793684E-12	8.62432348E-10	*APD 208				
1348	1348	*APD 209	-6.55086711E-04	-4.33099334E-10	3.92064029E-11	1.15741439E-10	*APD 209				
1349	1349	*APD 210	-3.55838202E-04	-2.03430231E-10	1.46619506E-11	1.5741439E-10	*APD 210				
1350	1350	*APD 211	-2.61172339E-04	-1.10601112E-10	6.22769458E-12	1.01079613E-09	*APD 211				
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SORTED BULK DATA ECHO

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1351-	*APD 212	-1.77851616E-04	-4.52708010E-11	1.50299391E-12	9.75490133E-10	*APD 213				
1352-	*APD 213	-1.25890598E-04	-2.22282331E-11	4.59829278E-13	9.68573000E-10	*APD 214				
1353-	*APD 214	-2.01357907E-05	-4.08773980E-13	4.27509175E-16	9.68826797E-10	*APD 215				
1354-	*APD 215	-6.55681526E-05	-5.57074786E-12	3.34918386E-14		*APD 216				
1355-	DMI	*POU2	35							
1356-	*APD 217	3.55855201E-11	-4.35144921E-06	-9.78670270E-13	-1.17782423E-10	*APD 217				
1357-	*APD 218	5.54738875E-11	-1.96031920E-05	-8.35229282E-12	-2.36965114E-10	*APD 218				
1358-	*APD 219	1.64839907E-10	-5.35948349E-05	-8.35229282E-12	-3.17272431E-10	*APD 219				
1359-	*APD 220	3.36156436E-19	-1.38296641E-04	-1.21570198E-10	-5.35453237E-10	*APD 220				
1360-	*APD 221	7.70585151E-10	-4.62397002E-04	-5.67559555E-10	-4.86376717E-10	*APD 221				
1361-	*APD 222	4.70333594E-10	-2.17191594E-04	-2.12273273E-10	-4.67623273E-10	*APD 222				
1362-	*APD 223	3.30745875E-10	-1.18082899E-04	-9.01533431E-11	-4.55449900E-10	*APD 223				
1363-	*APD 224	2.09208692E-10	-4.33332260E-05	-2.17576374E-11	-4.51289672E-10	*APD 224				
1364-	*APD 225	1.46086418E-10	-2.37319036E-05	-6.65657803E-12	-4.48089555E-10	*APD 225				
1365-	*APD 226	2.36559421E-11	-4.26426149E-07	-6.18870732E-15	-4.48207249E-10	*APD 226				
1366-	*APD 227	7.75990244E-11	-5.94759967E-06	-4.84934503E-13		*APD 227				
1367-	DMI	*POU2	36							
1368-	*APD 229	6.73795064E-11	8.71053230E-12	-6.22620917E-07	7.59218343E-11	*APD 228				
1369-	*APD 230	2.41541009E-10	3.92347921E-11	-5.31354913E-06	1.52746399E-10	*APD 229				
1370-	*APD 231	4.48825421E-10	1.07283710E-10	-2.15951491E-05	2.04511935E-10	*APD 230				
1371-	*APD 232	5.16240957E-10	2.76835443E-10	-7.73417996E-05	2.57183830E-10	*APD 231				
1372-	*APD 233	1.87112370E-09	9.25635592E-10	-3.61076090E-04	3.45149909E-10	*APD 232				
1373-	*APD 234	1.14205800E-09	4.34764225E-10	-1.35045200E-04	3.13515436E-10	*APD 233				
1374-	*APD 235	8.03112243E-10	2.36372921E-10	-5.73547004E-05	3.01427105E-10	*APD 234				
1375-	*APD 236	5.07997422E-10	9.67512459E-11	-1.38420046E-05	2.93580271E-10	*APD 235				
1376-	*APD 237	3.55581032E-10	4.75054440E-11	-1.38420046E-05	2.90898639E-10	*APD 236				
1377-	*APD 238	5.75131825E-11	8.73617964E-13	-3.93719546E-09	2.88835844E-10	*APD 237				
1378-	*APD 239	1.86424817E-10	1.19056154E-11	-3.08447113E-07	2.88911561E-10	*APD 238				
1379-	DMI	*POU2	37							
1380-	*APD 241	-7.31885646E-12	3.00114317E-13	-1.16063300E-13	-3.31033487E-04	*APD 240				
1381-	*APD 242	-2.01004630E-11	1.31910402E-12	-9.84228324E-13	-6.64598774E-04	*APD 241				
1382-	*APD 243	-2.65602527E-11	3.55715978E-12	-3.87247352E-12	-8.84429086E-04	*APD 242				
1383-	*APD 244	-6.21239025E-11	8.03113592E-12	-1.11090007E-11	-1.09337433E-03	*APD 243				
1384-	*APD 245	-1.24213168E-10	2.51554410E-11	-5.573117524E-11	-1.36908656E-03	*APD 244				
1385-	*APD 246	-2.27478206E-10	6.04517463E-11	-1.70091163E-10	-1.67131494E-03	*APD 245				
1386-	*APD 247	-1.37523652E-10	2.83939816E-11	-6.44301695E-11	-1.50491484E-03	*APD 246				
1387-	*APD 248	-7.71195607E-11	5.79603985E-12	-1.25242672E-11	-1.41614815E-03	*APD 247				
1388-	*APD 249	-5.34254863E-11	4.67471114E-12	-3.68106847E-12	-1.39395823E-03	*APD 248				
1389-	*APD 250	-6.45667113E-12	8.55378051E-14	-3.11264718E-15	-1.37811201E-03	*APD 249				
1390-	*APD 251	-2.77237538E-11	1.16635954E-12	-2.61812653E-13	-1.37869385E-03	*APD 250				
1391-	DMI	*POU2	38							
1392-	*APD 253	-1.69524574E-05	-1.35077214E-12	9.36476577E-15	1.70238421E-10	*APD 251				
1393-	*APD 254	-4.65581397E-05	-8.25987689E-12	7.94141771E-14	3.41778605E-10	*APD 252				
1394-	*APD 255	-6.47298070E-05	-2.19366192E-11	3.12457146E-13	5.62282221E-10	*APD 253				
1395-	*APD 256	-1.46211940E-04	-5.32283800E-11	1.05772956E-12	7.04070802E-10	*APD 254				
1396-	*APD 257	-2.67711396E-04	-1.55131047E-10	4.42681264E-12	8.59495808E-10	*APD 255				
1397-	*APD 258	-5.24901325E-04	-3.72048641E-10	1.37240950E-11	7.73922482E-10	*APD 256				
1398-	*APD 259	-3.16542584E-04	-1.75102613E-10	5.19865834E-12	7.28272947E-10	*APD 257				
1399-	*APD 260	-1.76625867E-04	-6.04111206E-11	1.01054148E-12	7.16861459E-10	*APD 258				
2000-	*APD 261	-1.23747555E-04	-2.80294356E-11	2.97013282E-13	7.08712422E-10	*APD 259				

EXTERNAL TANK NO. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
2001-	*APD 262	-1.95879402E-05	-5.27502575E-13	2.67286540E-16	7.09011516E-10	*APD 263				
2002-	*APD 263	-6.42157684E-05	-7.19281752E-12	2.11288052E-14		*APD 264				
2003-	OMI *PDU2									
2004-	*APD 265	2.66889337E-11	-1.86453326E-06	-3.3134521E-13	-2.20252316E-10	*APD 265				
2005-	*APD 266	5.68200070E-11	-8.32129091E-06	-2.83349559E-12	-2.93105540E-10	*APD 266				
2006-	*APD 267	1.03405062E-10	-2.20997172E-05	-1.11484006E-11	-3.62351260E-10	*APD 267				
2007-	*APD 268	1.78438458E-10	-5.36241278E-05	-3.77397141E-11	-4.53721947E-10	*APD 268				
2008-	*APD 269	3.51125795E-10	-1.56284441E-04	-1.6046115E-10	-5.53844494E-10	*APD 269				
2009-	*APD 270	6.43035625E-10	-3.75620788E-04	-4.89675189E-10	-4.98738384E-10	*APD 270				
2010-	*APD 271	3.68752364E-10	-1.76404501E-04	-1.85487444E-10	-4.69320582E-10	*APD 271				
2011-	*APD 272	2.16101603E-10	-6.38602713E-05	-3.60560887E-11	-4.61966687E-10	*APD 272				
2012-	*APD 273	1.51023194E-10	-2.90427704E-05	-1.05974240E-11	-4.56715110E-10	*APD 273				
2013-	*APD 274	2.39053083E-11	-5.31424519E-07	-9.53677445E-15	-4.56908057E-10	*APD 274				
2014-	*APD 275	7.82695476E-11	-7.24625535E-06	-7.53732255E-13		*APD 275				
2015-	OMI *PDU2									
2016-	*APD 277	4.67615113E-11	3.72877857E-12	-2.02375475E-07	6.96450814E-11	*APD 277				
2017-	*APD 278	1.28425562E-10	1.56412856E-11	-1.71616466E-06	1.39823806E-10	*APD 278				
2018-	*APD 279	2.33717934E-10	4.41960357E-11	-6.75229312E-06	1.86072227E-10	*APD 279				
2019-	*APD 280	4.03309605E-10	1.07239981E-10	-2.28578293E-05	2.88037594E-10	*APD 280				
2020-	*APD 281	7.93620503E-10	2.12544657E-10	-9.71775907E-05	3.51622509E-10	*APD 281				
2021-	*APD 282	1.45340029E-09	7.51183782E-10	-2.96581769E-04	3.16614068E-10	*APD 282				
2022-	*APD 283	6.76664919E-10	3.52781582E-10	-1.12344598E-04	2.97938785E-10	*APD 283				
2023-	*APD 284	4.5273067E-10	1.21711155E-10	-2.1831174E-05	2.93270297E-10	*APD 284				
2024-	*APD 285	3.41345174E-10	5.40810677E-11	-6.41854876E-06	2.89936519E-10	*APD 285				
2025-	*APD 286	5.40312101E-11	1.06276706E-12	-5.77614401E-09	2.90058866E-10	*APD 286				
2026-	*APD 287	1.77132195E-10	1.44914740E-11	-4.56513476E-07		*APD 287				
2027-	OMI *PDU2									
2028-	*APD 289	-5.57510635E-12	3.39901447E-13	-4.57792373E-14	-3.14907869E-04	*APD 289				
2029-	*APD 290	-1.52589330E-11	1.50912182E-12	-3.86646281E-13	-6.31507486E-04	*APD 290				
2030-	*APD 291	-2.74787137E-11	2.94226752E-12	-1.48701971E-12	-8.37838569E-04	*APD 291				
2031-	*APD 292	-4.62181265E-11	9.22871935E-12	-4.82489222E-12	-1.02818967E-03	*APD 292				
2032-	*APD 293	-8.40191666E-11	2.45637904E-11	-1.89407101E-11	-1.25327823E-03	*APD 293				
2033-	*APD 294	-1.32281963E-10	5.10095299E-11	-5.15592569E-11	-1.43286469E-03	*APD 294				
2034-	*APD 295	-2.17626007E-10	1.16520294E-10	-1.47247325E-10	-1.72149623E-03	*APD 295				
2035-	*APD 296	-1.69879411E-10	3.46310631E-11	-2.76179218E-11	-1.50175502E-03	*APD 296				
2036-	*APD 297	-7.29542266E-11	1.57342598E-11	-7.86146061E-12	-1.45737106E-03	*APD 297				
2037-	*APD 298	-1.13297711E-11	2.94701082E-13	-7.30228793E-15	-1.43006259E-03	*APD 298				
2038-	*APD 299	-3.71613573E-11	3.39713020E-12	-5.72212687E-13	-1.43108750E-03	*APD 299				
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2041-	*APD 302	-3.45852158E-05	-4.11913641E-12	-7.92131999E-15	2.91572766E-10	*APD 302				
2042-	*APD 303	-6.36023424E-05	-1.25889915E-11	-3.04443562E-14	3.86860988E-10	*APD 303				
2043-	*APD 304	-1.65967483E-04	-2.94704122E-11	-9.88487720E-14	4.74724704E-10	*APD 304				
2044-	*APD 305	-1.92636508E-04	-7.34596416E-11	-3.88043167E-13	5.78650239E-10	*APD 305				
2045-	*APD 306	-3.02291716E-04	-1.62890673E-10	-1.05633695E-12	6.61567023E-10	*APD 306				
2046-	*APD 307	-5.35650412E-04	-3.72082360E-10	-3.01669280E-12	7.94830868E-10	*APD 307				
2047-	*APD 308	-2.51927875E-04	-1.10614305E-10	-5.65815024E-13	6.93467062E-10	*APD 308				
2048-	*APD 309	-1.67267164E-04	-5.02609343E-11	-1.61815059E-13	6.73158862E-10	*APD 309				
2049-	*APD 310	-2.59563674E-05	-9.39146781E-13	-1.49603933E-16	6.60273169E-10	*APD 310				
2050-	*APD 311	-8.52024095E-05	-1.24129138E-11	-1.17230647E-14	6.60746347E-10	*APD 311				
2051-										

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

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*APD 352 -5.25674930E-05 -9.34759670E-12 7.81192602E-14 4.92241137E-10 *APD 353
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*APD 354 -1.25821112E-04 -4.20680157E-11 6.00227442E-13 6.05680173E-10 *APD 355
*APD 355 -1.86372883E-04 -8.28023899E-11 1.65400679E-12 7.97802491E-10 *APD 356
*APD 356 -4.61330252E-04 -3.24615890E-10 1.01924727E-11 7.06434244E-10 *APD 357
*APD 357 -2.45762756E-04 -1.20149002E-10 2.64560075E-12 6.70686617E-10 *APD 358
*APD 358 -3.56890945E-05 -2.20824747E-12 4.16683289E-15 6.71999123E-10 *APD 359
*APD 359 -1.17675356E-04 -3.00958147E-11 2.90734830E-13
DMI
*PDU2
*APD 361 8.42521452E-12 -3.99951879E-07 -3.38406637E-14 -1.80758353E-10 *APD 361
-9.02242138E-11 *APD 361
-1.80758353E-10 *APD 362
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SORTED BULK DATA ECHO

2101- *APD 362 2.29880281E-11 -1.72274304E-06 -2.84708997E-13 -2.39238628E-10 *APD 363
2102- *APD 363 4.10282919E-11 -4.43049157E-06 -1.06527981E-12 -2.91975111E-10 *APD 364
2103- *APC 364 6.76343148E-11 -1.00348670E-05 -3.27525607E-12 -3.50030893E-10 *APD 365
2104- *APC 365 1.15935025E-10 -2.44972907E-05 -1.14778178E-11 -3.86648713E-10 *APD 366
2105- *APC 366 1.61822250E-10 -4.28680214E-05 -2.51653422E-11 -4.30697034E-10 *APD 367
2106- *APD 367 2.39695594E-10 -8.43770395E-05 -6.93464591E-11 -5.67314640E-10 *APD 368
2107- *APC 368 5.92342042E-10 -3.30789248E-04 -4.27333058E-10 -5.03233058E-10 *APD 369
2108- *APC 369 3.16082716E-10 -1.22433863E-04 -1.10920373E-10 -4.76222946E-10 *APD 370
2109- *APC 370 4.59019073E-11 -2.25024178E-06 -1.74700693E-13 -4.77856199E-10 *APD 371
2110- *APC 371 1.51345755E-10 -3.06681468E-05 -1.21894500E-11 *APD 372
2111- *PDU2 48 3.78383852E-11 *APD 373
2112- *APC 373 1.82853455E-11 7.66725930E-13 -2.06847695E-08 7.58013913E-11 *APD 374
2113- *APC 374 4.58912162E-11 3.38726963E-12 -1.74025502E-07 1.00327927E-10 *APD 375
2114- *APC 375 8.50441887E-11 8.71126175E-12 -6.51141875E-07 1.22443665E-10 *APD 376
2115- *APC 376 1.46787556E-10 1.97306199E-11 -2.00136700E-06 1.46790136E-10 *APD 377
2116- *APC 377 2.51615173E-10 4.91667345E-11 -7.01570207E-06 1.62146287E-10 *APD 378
2117- *APC 378 3.51204621E-10 8.42873826E-11 -1.53820583E-05 1.80618492E-10 *APD 379
2118- *APC 379 5.20222976E-10 1.65902680E-10 -4.23873200E-05 2.37910802E-10 *APD 380
2119- *APC 380 1.26773747E-09 6.50399956E-10 -2.61202923E-04 2.10664181E-10 *APD 381
2120- *APC 381 6.65998365E-10 2.40730103E-10 -6.77989738E-05 2.00003944E-10 *APD 382
2121- *APC 382 9.56214777E-11 4.42443998E-12 -1.96783716E-07 2.00395381E-10 *APD 383
2122- *APC 383 3.26467475E-10 6.02999040E-11 -7.45067973E-06 *APD 384
2123- *PDU2 49 -1.48492822E-04 *APD 385
2124- *APD 385 -1.31670365E-12 5.38706789E-14 -2.26677176E-15 -2.97342194E-04 *APD 386
2125- *APD 386 -3.58751657E-12 2.37598461E-13 -1.90964594E-14 -3.93114285E-04 *APD 387
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2127- *APD 388 -1.04402400E-11 1.36269641E-12 -2.16499236E-13 -5.71027165E-04 *APD 389
2128- *APC 389 -1.76201415E-11 3.26764310E-12 -7.50596959E-13 -6.26603840E-04 *APD 390
2129- *APD 390 -2.40702874E-11 5.55734622E-12 -1.58100182E-12 -6.88333530E-04 *APD 391
2130- *APC 391 -3.41712492E-11 1.04153361E-11 -2.21933929E-12 -8.27037520E-04 *APD 392
2131- *APD 392 -6.7672535E-11 3.32606859E-11 -2.37093400E-11 -1.07740774E-03 *APD 393
2132- *APD 393 -1.55176150E-10 1.39664181E-10 -1.09990114E-10 -9.0197961E-04 *APD 394
2133- *APD 394 -1.65240804E-11 1.40304601E-12 -1.11111111E-13 -9.0843555E-04 *APD 395
2134- *APC 395 -5.48528224E-11 2.00516777E-11 -8.63439703E-13 *APD 396
2135- *PDU2 50 7.37993000E-11 *APD 397
2136- *APC 397 -3.04290370E-06 -1.26943378E-13 4.93270484E-16 1.47775875E-10 *APD 398
2137- *APC 398 -8.25075088E-06 -5.59690340E-13 4.15556307E-15 1.95373481E-10 *APD 399
2138- *APD 399 -1.47417595E-05 -1.43099508E-12 1.54586058E-14 2.37932118E-10 *APD 400
2139- *APC 400 -2.41287780E-05 -3.20992972E-12 4.71122537E-14 2.83794099E-10 *APD 401
2140- *APD 401 -4.67201442E-05 -7.67717016E-12 1.63336840E-13 3.11451168E-10 *APD 402
2141- *APC 402 -5.62644567E-05 -1.19907294E-11 3.44040822E-13 3.42094131E-10 *APD 403
2142- *APC 403 -7.89697369E-05 -2.45340692E-11 9.18167452E-13 4.11038314E-10 *APD 404
2143- *APD 404 -1.56841157E-04 -7.83479531E-11 5.13937236E-12 5.35650629E-10 *APD 405
2144- *APC 405 -3.58612044E-04 -2.58321808E-10 2.39340880E-11 4.48273640E-10 *APD 406
2145- *APC 406 -3.81869613E-05 -3.10502466E-12 2.4614083E-14 4.51482407E-10 *APD 407
2146- *APC 407 -1.25075866E-04 -4.72473172E-11 1.87892497E-12 *APD 408
2147- *PDU2 51 -4.77224232E-11 *APD 409
2148- *APC 409 3.70873211E-12 -1.26598252E-07 -6.84359253E-15 -9.55595048E-11 *APD 410
2149- *APD 410 1.01048794E-11 -5.58158661E-07 -5.76539694E-14 -1.26339565E-10 *APD 411
2150- *APC 411 1.75674470E-11 -1.42710451E-06 -2.14471399E-13 -1.53859175E-10 *APD 412

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CARD	COUNT	1	2	3	4	5	6	7	8	9	10
2151-	APD 412	2.9408475E-11	-3.20120216E-06	-6.53631500E-13	-1.83516022E-10	APD 413					
2152-	APC 413	4.96302582E-11	-7.67624260E-06	-2.26612132E-12	-2.01377179E-10	APD 414					
2153-	APD 414	6.7582670E-11	-1.30551389E-05	4.77319131E-12	-2.21215768E-10	APD 415					
2154-	APC 415	5.62493972E-11	-2.44673720E-05	-1.2385793E-11	-2.65798494E-10	APD 416					
2155-	APD 416	1.91160185E-10	-7.81349372E-05	-7.15806997E-11	-3.46384477E-10	APD 417					
2156-	APC 417	4.37681038E-10	-2.57619424E-06	-3.32070371E-10	-2.89876789E-10	APD 418					
2157-	APD 418	4.65427974E-11	-3.29603081E-06	-3.41493760E-13	-2.91951796E-10	APD 419					
2158-	APC 419	1.573194CE-10	-4.7118E541E-05	-2.60680505E-11	APD 420						
2159-	DMI	*PDU2	52	1	2.62975336E-11	APD 421					
2160-	APD 421	8.30554708E-12	2.49046429E-13	-4.13671231E-09	5.26582528E-11	APD 422					
2161-	APD 422	2.26305363E-11	1.09361131E-12	-3.4498119E-08	6.96191160E-11	APD 423					
2162-	APC 423	4.02392841E-11	2.79615480E-12	-1.29640455E-07	8.47844156E-11	APD 424					
2163-	APC 424	6.58622046E-11	6.27217896E-12	-3.95097288E-07	1.01126879E-10	APD 425					
2164-	APD 425	1.11150214E-10	1.50402052E-11	-1.36979088E-06	1.10969303E-10	APD 426					
2165-	APC 426	1.51838652E-10	2.55791777E-11	-2.88522733E-06	1.21901392E-10	APD 427					
2166-	APD 427	2.15556781E-10	4.79394024E-11	-7.70002407E-06	1.46468906E-10	APD 428					
2167-	APD 428	4.28115543E-10	1.53091345E-10	-4.3268039E-05	1.90875898E-10	APD 429					
2168-	APC 429	5.76871872E-10	5.04758901E-10	-2.0072913E-04	1.59737279E-10	APD 430					
2169-	APC 430	1.04235634E-10	6.45796473E-12	-2.06423964E-07	1.60880670E-10	APD 431					
2170-	APC 431	3.52327056E-10	9.23209148E-11	-1.57572213E-05	APD 432						
2171-	DMI	*PDU2	53	1	-9.02599568E-05	APD 433					
2172-	APC 433	-4.26604878E-13	8.05245085E-15	-7.95171370E-17	-1.80666000E-04	APD 434					
2173-	APD 434	-1.16149017E-12	3.54999131E-14	-6.6914147E-16	-2.38649518E-04	APD 435					
2174-	APD 435	-2.06131552E-12	9.07466918E-14	-2.49732008E-15	-2.90161464E-04	APD 436					
2175-	APC 436	-3.3203721E-12	2.01469240E-13	-7.55678750E-15	-3.44839180E-04	APD 437					
2176-	APC 437	-5.6216704E-12	4.97386932E-13	-2.59410786E-14	-3.76831973E-04	APD 438					
2177-	APC 438	-7.618542CE-12	8.25232135E-13	-5.35660377E-14	-4.10821289E-04	APD 439					
2178-	APC 439	-1.06166811E-11	1.53090127E-12	-1.45726150E-13	-4.78375936E-04	APD 440					
2179-	APD 440	-1.96205615E-11	4.95947374E-12	-1.23632007E-12	-5.52370911E-04	APD 441					
2180-	APC 441	-2.40668327E-11	1.19374493E-11	-4.09704649E-12	-7.52235297E-04	APD 442					
2181-	APD 442	-2.8112274E-11	4.07907822E-12	-5.09925219E-13	-8.49073054E-04	APD 443					
2182-	APC 443	-1.30192440E-10	9.07331010E-11	-7.16866494E-11	APD 444						
2183-	DMI	*PDU2	54	1	3.22532001E-11	APD 445					
2184-	APC 445	-5.02823622E-07	-1.35113607E-14	-1.78801101E-18	6.45584940E-11	APD 446					
2185-	APD 446	-2.67587257E-05	-6.8303231E-14	-1.50512725E-17	8.52783242E-11	APD 447					
2186-	APC 447	-4.74891385E-05	-1.74804779E-13	-5.59433261E-17	1.03685352E-10	APD 448					
2187-	APC 448	-7.7455156E-06	-3.91941633E-13	-1.69978059E-16	1.23221774E-10	APD 449					
2188-	APD 449	-1.25743956E-05	-9.38849692E-13	-5.93503421E-16	1.34655967E-10	APD 450					
2189-	APD 450	-1.75517926E-05	-1.58963901E-12	-1.20017242E-15	1.46891543E-10	APD 451					
2190-	APC 451	-2.44589901E-05	-2.94806746E-12	-1.27783020E-15	1.70941344E-10	APD 452					
2191-	APD 452	-4.56631678E-05	-9.55147940E-12	-3.27092074E-14	1.97382444E-10	APD 453					
2192-	APD 453	-7.84841104E-05	-2.29950364E-11	-9.21856583E-14	2.68801204E-10	APD 454					
2193-	APD 454	-6.47658308E-05	-7.85760459E-12	-1.14699611E-14	3.03404857E-10	APD 455					
2194-	APC 455	-2.99940817E-04	-1.74778650E-10	-1.61697652E-12	APD 456						
2195-	DMI	*PDU2	55	1	-3.16246473E-11	APD 457					
2196-	APD 457	9.7385720CF-13	-1.93262757E-08	-2.81835237E-16	-6.33004621E-11	APD 458					
2197-	APD 458	2.65146152E-12	-8.52015205E-08	-2.37166259E-15	-8.36163232E-11	APD 459					
2198-	APC 459	4.76550095E-12	-2.17796449E-07	-8.81592230E-15	-1.01664718E-10	APD 460					
2199-	APD 460	7.67489157E-12	-4.84136143E-07	-2.67838831E-14	-1.2082380E-10	APD 461					
2200-	APD 461	1.26560339E-11	-1.16975207E-06	-9.19441384E-14	-1.32031761E-10	APD 462					

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2202- *APC 463 2.42358633E-11 -3.67423945E-06 -5.16504049E-13 -1.67610023E-10 *APD 464
2203- *APD 464 4.52465981E-11 -1.19005808E-05 -4.38194793E-12 -1.93535826E-10 *APD 465
2204- *APC 465 7.77681283E-11 -2.86504510E-05 -1.45213520E-11 -2.63562727E-10 *APD 466
2205- *APD 466 6.41749848E-11 -9.78998833E-06 -1.80735114E-12 -2.97492031E-10 *APD 467
2206- *APD 467 2.97204448E-10 -2.17763896E-04 -2.54791077E-10 *APD 468
2207- DMI *PDUE 56 2.54315180E-11 *APD 469
2208- *APC 469 2.28767266E-12 2.53942307E-14 -1.85954196E-10 5.09042114E-11 *APD 470
2209- *APC 470 6.22850382E-12 1.11952602E-13 -1.56481583E-09 6.72415595E-11 *APD 471
2210- *APC 471 1.10538254E-11 2.86179012E-13 -5.81670179E-09 8.17555091E-11 *APD 472
2211- *APC 472 1.80289533E-11 6.41661312E-13 -1.76178729E-08 9.71614713E-11 *APD 473
2212- *APC 473 2.01598843E-11 1.53702398E-12 -6.06642620E-08 1.06175707E-10 *APD 474
2213- *APD 474 4.08545003E-11 2.60245384E-12 -1.24776643E-07 1.15752463E-10 *APD 475
2214- *APC 475 5.69320563E-11 4.82785686E-12 -3.40786813E-07 1.34786599E-10 *APD 476
2215- *APD 476 1.06288634E-10 1.36370472E-11 -2.89118725E-06 1.55635296E-10 *APD 477
2216- *APC 477 1.82683765E-10 3.76459697E-11 -9.58111650E-05 2.11948806E-10 *APD 478
2217- *APC 478 1.50752383E-10 1.24637942E-11 -1.19248125E-06 2.39233522E-10 *APD 479
2218- *APC 479 6.58158195E-10 2.96136004E-10 -1.68119082E-04 *APD 480
2219- DMI *PDUE 57 1 -2.53214821E-05 *APD 481
2220- *APD 481 -4.34748435E-14 1.59099218E-16 -2.48905264E-19 -5.06831857E-05 *APD 482
2221- *APD 482 -1.18360454E-13 7.01396220E-16 -2.09371242E-18 -6.69473811E-05 *APD 483
2222- *APD 483 -2.10029639E-13 1.79289537E-15 -7.78061883E-18 -8.13927618E-05 *APD 484
2223- *APD 484 -3.42481085E-13 4.01975071E-15 -2.36120376E-17 -9.67169472E-05 *APD 485
2224- *APC 485 -5.73394735E-13 9.62755609E-15 -8.07653912E-17 -1.05673025E-04 *APD 486
2225- *APD 486 -7.75177177E-13 1.62919943E-14 -1.64667030E-16 -1.15170551E-04 *APD 487
2226- *APC 487 -1.07885408E-12 3.01842291E-14 -4.53599908E-16 -1.33942958E-04 *APD 488
2227- *APD 488 -2.60520415E-12 9.79404817E-14 -4.32183413E-15 -1.53862522E-04 *APD 489
2228- *APC 489 -3.36189323E-12 2.24792400E-13 -1.36911893E-14 -3.43215652E-04 *APD 490
2229- *APD 490 -3.00014180E-11 5.54264534E-12 -1.07365939E-12 -2.11034421E-04 *APD 491
2230- *APC 491 -5.37730189E-12 1.39808170E-12 -1.24377071E-13 *APD 492
2231- DMI *PDUE 58 1 7.31503660E-12 *APD 493
2232- *APD 493 -8.42375130E-08 -3.18100259E-16 -7.95733342E-20 1.46416906E-11 *APD 494
2233- *APD 494 -2.29237161E-07 -1.40236024E-15 -6.69347727E-19 1.93801961E-11 *APD 495
2234- *APC 495 -4.06556701E-07 -3.50404809E-15 -2.40741730E-18 2.35132747E-11 *APD 496
2235- *APD 496 -6.6356722E-07 -8.33702479E-15 -7.54862114E-18 2.79402196E-11 *APD 497
2236- *APC 497 -1.11017815E-06 -1.32491829E-14 -2.58203965E-17 3.05275111E-11 *APD 498
2237- *APD 498 -1.50199503E-06 -3.25739530E-14 -5.26430712E-17 3.32712191E-11 *APD 499
2238- *APC 499 -2.09040445E-06 -6.03498371E-14 -1.45013212E-16 3.86943255E-11 *APD 500
2239- *APD 500 -3.88523149E-06 -1.95802062E-13 -1.38108417E-15 4.44881196E-11 *APD 501
2240- *APC 501 -6.51405663E-06 -4.49446361E-13 -4.18517295E-15 9.91504379E-11 *APD 502
2241- *APD 502 -5.81312197E-05 -1.10918759E-11 -3.43242795E-13 6.09050108E-11 *APD 503
2242- *APC 503 -1.81695941E-05 -2.19544685E-12 -3.97626268E-14 *APD 504
2243- DMI *PDUE 59 1 -9.12259070E-12 *APD 505
2244- *APC 505 8.35858781E-14 -3.97937683E-10 -1.04592356E-19 -1.82596716E-11 *APD 506
2245- *APD 506 2.28652004E-13 -1.75432001E-09 -8.79790564E-18 -2.41191789E-11 *APD 507
2246- *APC 507 4.05740970E-13 -4.48437376E-09 -3.26943159E-17 -2.93234326E-11 *APD 508
2247- *APC 508 6.61614264E-13 -1.00541691E-09 -9.92197704E-17 -3.48442802E-11 *APD 509
2248- *APD 509 1.10769900E-12 -2.40803750E-09 -3.37386404E-16 -3.80709075E-11 *APD 510
2249- *APC 510 1.45750785E-12 -4.07494127E-08 -6.91946720E-16 -4.14926871E-11 *APD 511
2250- *APD 511 2.06416010E-12 -7.54965299E-08 -1.90607125E-15 -4.82557327E-11 *APD 512

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CARD	COUNT	1	2	3	4	5	6	7	8	9	10
2251-	*APD 512	3.8737077E-12	-2.44968021E-07	-1.81610200E-14	-5.54321727E-11	*APD 513					
2252-	*APD 513	6.49459653E-12	-5.62249113E-07	-5.50104497E-14	-1.23650618E-10	*APD 514					
2253-	*APD 514	5.75575554E-11	-1.38632222E-05	-4.51162371E-12	-7.60295259E-11	*APD 515					
2254-	*APC 515	1.8115314EE-11	-2.74651302E-06	-5.22644699E-13		*APD 516					
2255-	DMI	*PDU2	60								
2256-	*APD 517	2.02628062E-13	4.9782709RE-16	-6.69491426E-13	6.32199328E-12	*APD 517					
2257-	*APC 518	5.61655997E-13	2.19469434E-15	-5.6315165E-12	1.26540297E-11	*APD 518					
2258-	*APC 519	5.78507927E-13	5.61003473E-15	-2.09278567E-11	2.03212586E-11	*APD 519					
2259-	*APD 520	1.55623963E-12	1.25779480E-14	-6.35102526E-11	2.41472394E-11	*APD 521					
2260-	*APC 521	2.67248463E-12	3.01249809E-14	-2.17239782E-10	2.63832983E-11	*APD 522					
2261-	*APC 522	3.61295455E-12	5.99782476E-14	-4.42911929E-10	2.87545265E-11	*APD 523					
2262-	*APC 523	5.02833712E-12	5.44475075E-14	-1.22006760E-09	3.34414302E-11	*APD 524					
2263-	*APC 524	9.34587957E-12	3.06459393E-13	-1.16247882E-08	3.84147297E-11	*APD 525					
2264-	*APD 525	1.56691445E-11	7.03383740E-13	-3.52114400E-08	8.56903092E-11	*APD 526					
2265-	*APD 526	1.3583090CE-10	1.73431269E-11	-2.88787032E-06	5.26887833E-11	*APD 527					
2266-	*APC 527	4.37058306E-11	3.43593730E-12	-3.34542505E-07		*APD 528					
2267-	DMI	*PDU2	85								
2268-	*APD 529	-2.7036914E-11	1.99282551E-11	-2.08100620E-11	-9.64717410E-05	*APD 529					
2269-	*APD 530	-3.21422056E-12	1.37790875E-13	8.43977557E-13	-9.51672700E-05	*APD 531					
2270-	*APC 531	-4.16605010E-13	5.20681622E-14	-1.31727853E-13	-9.50905669E-05	*APD 532					
2271-	*APD 532	-5.2581511E-14	-5.97173813E-15	2.21068484E-14	-9.50860267E-05	*APD 533					
2272-	*APC 533	-7.61053682E-15	9.48673089E-16	-4.61601785E-15	-9.50857357E-05	*APD 534					
2273-	*APC 534	-3.37688721E-15	2.56414733E-16	-6.63096546E-16	-9.50856629E-05	*APD 535					
2274-	*APC 535	-1.50011652E-15	7.77675676E-17	-1.08773721E-16	-9.50856494E-05	*APD 536					
2275-	*APD 536	-6.66189928E-16	1.44578995E-17	-5.25070926E-18	-9.50856484E-05	*APD 537					
2276-	*APC 537	-5.02587980E-16	9.39387091E-18	-1.93039140E-18	-9.50856484E-05	*APD 538					
2277-	*APC 538	-3.05601017E-16	3.32456627E-18	4.2060597E-19	-9.50856484E-05	*APD 539					
2278-	*APC 539	-1.23128524E-16	2.64219014E-19	1.38646793E-19		*APD 540					
2279-	DMI	*PDU2	86								
2280-	*APD 541	-7.1720554E-05	-5.01005765E-11	6.64255747E-12	5.91104240E-11	*APD 541					
2281-	*APD 542	-8.5267754E-06	-3.46447480E-13	-2.69641893E-13	4.74433132E-11	*APD 542					
2282-	*APC 543	-1.10512428E-06	-1.30914919E-13	4.20856755E-14	4.68017708E-11	*APD 543					
2283-	*APC 544	-1.35482455E-07	1.50147364E-14	-7.64290292E-15	4.67640510E-11	*APD 544					
2284-	*APC 545	-2.0184127E-08	8.185240774E-15	1.47476004E-15	4.67618166E-11	*APD 545					
2285-	*APD 546	-8.95743714E-09	-7.45273004E-16	2.11852410E-16	4.67616362E-11	*APD 547					
2286-	*APC 547	-3.5757448E-09	-2.05595030E-16	3.47520545E-17	4.67616362E-11	*APD 548					
2287-	*APD 548	-1.66803482E-09	-3.63514777E-17	1.67754627E-18	4.67616224E-11	*APD 549					
2288-	*APD 549	-1.37586364E-09	-2.48761401E-17	6.16739860E-19	4.67616224E-11	*APD 550					
2289-	*APD 550	-8.10665535E-10	-8.35895291E-18	-1.34379161E-19	4.67616224E-11	*APD 551					
2290-	*APC 551	-3.52148044E-10	-6.64325604E-19	-4.42961907E-20		*APD 552					
2291-	DMI	*PDU2	87								
2292-	*APD 553	8.77142525E-11	-5.11736434E-05	-6.20154483E-11	-4.00639938E-11	*APD 553					
2293-	*APD 554	1.04277030E-11	-1.57867004E-07	2.5511138E-12	-3.21562360E-11	*APD 554					
2294-	*APD 555	1.25156643E-12	-1.33718913E-07	-3.92558273E-13	-3.17214031E-11	*APD 555					
2295-	*APC 556	1.70587015E-13	1.53363299E-08	6.58799187E-14	-3.16958404E-11	*APD 556					
2296-	*APC 557	2.46904141E-14	-2.436333624E-09	-1.37505556E-14	-3.16943277E-11	*APD 557					
2297-	*APD 558	1.05554203E-14	-7.61237740E-10	-1.97607420E-15	-3.16942306E-11	*APD 558					
2298-	*APD 559	4.64673622E-15	-2.04855148E-10	-3.24153156E-16	-3.16942028E-11	*APD 559					
2299-	*APC 560	1.96666254E-15	-3.71300761E-11	-1.56474779E-17	-3.16942028E-11	*APD 560					
2300-	*APC 561	1.63276054E-15	-2.54089527E-11	-5.75270202E-18	-3.16942028E-11	*APD 561					

SORTED BULK DATA ECHO

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
*APD 562	2301-	9.9144338E-16	-8.53798089E-12	1.25343505E-18	-3.16942028E-11	*APD 563					
*APD 563	2302-	4.31900825E-16	-6.78554489E-13	4.13177078E-19		*APD 564					
DMI	2303-	*PDU2									
*APD 565	2304-	1.56197267E-10	1.00586012E-10	-3.73244854E-05	1.81112625E-11	*APD 565					
*APC 566	2305-	2.32244396E-11	6.95556405E-13	1.52185112E-06	1.43399277E-11	*APD 566					
*APC 567	2306-	3.02315291E-12	2.62835489E-13	-2.378530297E-07	1.43283684E-11	*APD 567					
*APD 568	2307-	3.81565222E-13	-3.01448150E-14	3.98628330E-08	1.43276857E-11	*APD 568					
*APC 569	2308-	5.52269649E-14	4.78981596E-15	-8.32355343E-09	1.43276415E-11	*APD 569					
*APD 570	2309-	2.45048631E-14	1.49627544E-15	-1.19568888E-09	1.43276302E-11	*APD 570					
*APC 571	2310-	1.68580998E-14	4.02659558E-16	-1.96139605E-10	1.43276276E-11	*APD 571					
*APC 572	2311-	4.39902058E-15	7.2932116E-17	-9.4680272E-12	1.43276276E-11	*APD 572					
*APC 573	2312-	3.65435763E-15	4.99431919E-17	-3.48036143E-12	1.43276268E-11	*APD 573					
*APC 574	2313-	2.82176383E-15	1.67821182E-17	-7.58412217E-13	1.43276264E-11	*APD 574					
*APC 575	2314-	5.66066064E-16	1.33375429E-18	2.50006396E-13		*APD 575					
DMI	2315-	*PDU2									
*APD 577	2316-	-4.51490400E-12	1.85611671E-13	1.08764733E-12	-1.29952619E-04	*APD 577					
*APD 578	2317-	-3.95453809E-11	2.40320958E-11	-2.26132862E-11	-4.26348253E-04	*APD 578					
*APC 579	2318-	-4.75310589E-12	9.32580906E-14	9.75600677E-13	-3.93760623E-04	*APD 579					
*APC 580	2319-	-6.01806907E-13	7.08841623E-14	-1.58283814E-13	-3.92298680E-04	*APD 580					
*APD 581	2320-	-8.64382893E-14	-8.08771453E-15	2.88959564E-14	-3.92215559E-04	*APD 581					
*APD 582	2321-	-3.82707138E-14	-2.58453850E-15	4.19975537E-15	-3.92210204E-04	*APD 582					
*APC 583	2322-	-1.65852773E-14	7.02448447E-16	6.84589604E-16	-3.92208807E-04	*APD 583					
*APC 584	2323-	-6.86192213E-15	-1.27538849E-16	3.37237168E-17	-3.92209574E-04	*APD 584					
*APD 585	2324-	-5.7700811E-15	-8.75003166E-17	1.27288033E-17	-3.92208574E-04	*APD 585					
*APC 586	2325-	-3.45871547E-15	-2.95895872E-17	-2.44005377E-18	-3.92208574E-04	*APD 586					
*APC 587	2326-	-1.50674244E-15	-2.33809383E-18	-8.39179200E-19		*APD 587					
DMI	2327-	*PDU2									
*APC 589	2328-	-1.14854274E-05	-4.94610561E-13	-2.60202233E-13	6.62022243E-11	*APD 589					
*APD 590	2329-	-1.00599165E-04	-6.27450314E-11	5.40986613E-12	2.14139553E-10	*APD 590					
*APC 591	2330-	-1.20913865E-05	-2.43590521E-13	-2.33396799E-13	2.00594930E-10	*APD 591					
*APD 592	2331-	-1.53053151E-06	-1.85070439E-13	3.78668586E-14	1.99850206E-10	*APD 592					
*APC 593	2332-	-2.15889614E-07	2.11160900E-14	-6.91288999E-15	1.99805117E-10	*APD 593					
*APD 594	2333-	-9.73565192E-08	6.74792663E-15	-1.00472422E-15	1.99804437E-10	*APD 594					
*APD 595	2334-	-4.32087077E-08	1.93401162E-15	-1.63777050E-16	1.99804284E-10	*APD 595					
*APC 596	2335-	-1.74555887E-08	3.32999102E-16	-8.06785813E-18	1.99804250E-10	*APD 596					
*APD 597	2336-	-1.45003902E-08	2.28413044E-16	-3.04516120E-18	1.99804243E-10	*APD 597					
*APD 598	2337-	-8.75855974E-09	7.72550031E-17	5.83743581E-19	1.99804229E-10	*APD 598					
*APC 599	2338-	-3.83298726E-09	6.10449283E-18	2.00807916E-19		*APD 599					
DMI	2339-	*PDU2									
*APD 601	2340-	1.41835094E-11	-4.76678849E-07	3.33260503E-12	-4.10607381E-11	*APD 601					
*APD 602	2341-	1.24231264E-10	-6.17180776E-05	-6.92882141E-11	-1.32816189E-10	*APD 602					
*APC 603	2342-	1.49218056E-11	-2.39601594E-07	7.98292746E-12	-1.24415381E-10	*APD 603					
*APD 604	2343-	1.89056756E-12	-1.82041333E-07	-4.8498273E-13	-1.23953472E-10	*APD 604					
*APC 605	2344-	2.71544668E-13	2.07704787E-08	8.85315515E-14	-1.23927174E-10	*APD 605					
*APD 606	2345-	1.20226908E-13	6.63748523E-07	1.28682567E-14	-1.23925509E-10	*APD 606					
*APD 607	2346-	5.13590167E-14	1.9039407E-09	2.09761547E-15	-1.23924995E-10	*APD 607					
*APD 608	2347-	2.15566361E-14	3.27538805E-10	1.0333111E-16	-1.23924981E-10	*APD 608					
*APD 609	2348-	1.79067271E-14	2.24714053E-10	3.90016585E-17	-1.23924969E-10	*APD 609					
*APD 610	2349-	1.08655049E-14	7.59905611E-11	-7.47644219E-18	-1.23924954E-10	*APD 610					
*APC 611	2350-	4.72340984E-15	6.00457965E-12	-2.57189808E-18		*APD 611					

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2351-	DMI	92								
2352-	*PDU2									
2353-	*APD 613	3.1225604E-11	9.38450706E-13	2.05001379E-06	7.35333044E-11	*APD 613				
2354-	*APD 614	2.7350033E-10	1.21506152E-10	4.262194E-12	05	6.88822194E-11	*APD 614			
2355-	*APD 615	3.28730376E-11	4.71714519E-13	1.83882639E-06	6.86264934E-11	*APD 615				
2356-	*APD 616	4.16216714E-12	3.58390021E-13	2.98335578E-07	6.86119356E-11	*APD 616				
2357-	*APD 617	5.97817369E-13	4.08914405E-14	5.44635128E-08	6.86110058E-11	*APD 617				
2358-	*APD 618	2.64684704E-13	1.10674077E-14	7.9157227E-09	6.86107837E-11	*APD 618				
2359-	*APD 619	1.17472167E-13	3.55157484E-15	1.29032429E-09	6.86107282E-11	*APD 619				
2360-	*APD 620	4.74578665E-14	6.44835585E-16	6.35629605E-11	6.86107143E-11	*APD 620				
2361-	*APD 621	3.64224380E-14	4.42400861E-16	2.39914200E-11	6.86107143E-11	*APD 621				
2362-	*APD 622	2.39208813E-14	1.49604799E-16	4.59004771E-12	6.86107005E-11	*APD 622				
2363-	*APD 623	1.04208058E-14	1.18213879E-17	1.58207388E-12		*APD 623				
2364-	DMI	93								
2365-	*PDU2									
2366-	*APD 625	-5.90129126E-13	7.53504247E-14	1.83465710E-13	-1.29432694E-04	*APD 625				
2367-	*APD 626	-4.79321791E-12	1.00230913E-13	1.05436666E-12	-3.9755118E-04	*APD 626				
2368-	*APD 627	-3.97599453E-11	2.55541177E-11	-2.42453835E-11	-6.90924935E-12	*APD 627				
2369-	*APD 628	-4.5509254E-12	6.19417400E-15	1.12354458E-12	-6.64273044E-04	*APD 628				
2370-	*APD 629	-6.162029025E-13	8.31759917E-14	1.94055817E-13	-6.62773843E-04	*APD 629				
2371-	*APD 630	-2.93200360E-13	2.35673907E-14	-2.93287970E-14	-6.62752427E-04	*APD 630				
2372-	*APD 631	-1.30179071E-13	6.16344202E-15	-4.66723285E-15	-6.62747771E-04	*APD 631				
2373-	*APD 632	-5.25562364E-14	1.11145630E-15	-2.51397261E-16	-6.62747305E-04	*APD 632				
2374-	*APD 633	-4.36919178E-14	7.54853529E-16	-1.02771447E-15	-6.62746374E-04	*APD 633				
2375-	*APD 634	-2.651124192E-14	2.48011270E-16	1.21455144E-17	-6.62745908E-04	*APD 634				
2376-	*APD 635	-1.15454535E-14	2.0123261E-17	4.8382635E-18		*APD 635				
2377-	DMI	94								
2378-	*PDU2									
2379-	*APD 637	-1.50202913E-06	-1.80226439E-13	4.90579189E-14	6.51873278E-11	*APD 637				
2380-	*APD 638	-1.22080892E-05	-2.39736616E-13	-2.81933060E-13	2.00227238E-10	*APD 638				
2381-	*APD 639	-1.01266618E-04	-6.13606388E-11	6.48311006E-12	3.47976536E-10	*APD 639				
2382-	*APD 640	-1.17132349E-05	-1.47915908E-14	-3.00457684E-13	3.34553496E-10	*APD 640				
2383-	*APD 641	-1.66815457E-06	-1.91768366E-13	5.18396519E-14	3.33842207E-10	*APD 641				
2384-	*APD 642	-7.46766773E-07	-5.63695039E-14	7.84238668E-15	3.33798544E-10	*APD 642				
2385-	*APD 643	-3.11559647E-07	-1.47419910E-14	1.24799780E-15	3.33787866E-10	*APD 643				
2386-	*APD 644	-1.33559986E-07	-2.65842909E-15	6.72225464E-17	3.33785444E-10	*APD 644				
2387-	*APD 645	-1.11281111E-07	-1.80949117E-15	2.74806200E-17	3.33785222E-10	*APD 645				
2388-	*APD 646	-6.75257752E-08	-5.95117225E-16	3.24765584E-18	3.33784778E-10	*APD 646				
2389-	*APD 647	-2.54158866E-08	-4.91317076E-17	-1.29390652E-18	3.33784556E-10	*APD 647				
2390-	DMI	95								
2391-	*PDU2									
2392-	*APD 649	1.88006468E-12	-1.91865005E-07	-5.37301540E-13	-4.31900765E-11	*APD 649				
2393-	*APD 650	1.52704932E-11	-2.41916212E-07	3.08784161E-12	-1.32661215E-10	*APD 650				
2394-	*APD 651	1.26669397E-10	-6.19185012E-05	-7.10055525E-11	-2.30553049E-10	*APD 651				
2395-	*APD 652	1.46515022E-11	-1.49260586E-09	3.29073054E-12	-2.21596409E-10	*APD 652				
2396-	*APD 653	2.16912798E-12	-1.93511880E-07	-5.68315902E-13	-2.21189373E-10	*APD 653				
2397-	*APD 654	9.34092081E-13	-5.68919942E-08	-8.58928813E-14	-2.21159438E-10	*APD 654				
2398-	*APD 655	4.14731563E-13	-1.48760222E-08	-1.36645605E-14	-2.21152291E-10	*APD 655				
2399-	*APD 656	1.67563934E-13	-2.68259859E-09	-7.3624714E-16	-2.21150709E-10	*APD 656				
2400-	*APD 657	1.35156055E-13	-1.82190618E-09	-3.0097836E-16	-2.21150251E-10	*APD 657				
2401-	*APD 658	8.44646616E-14	-6.00528204E-10	3.5569001E-17	-2.21150098E-10	*APD 658				
2402-	*APD 659	3.67948774E-14	-4.85693152E-11	1.41713774E-17	-2.21150098E-10	*APD 659				
2403-	DMI	96								
2404-	*PDU2									
2405-	*APD 661	4.10399579E-12	3.57648047E-13	-3.23054167E-07	2.14549767E-11	*APD 661				
2406-										
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2403-	APC	664	3.15827775E-11	2.93529578E-14	1.97856116E-06	1.09876885E-10	APD	665		
2404-	APC	665	4.6040155E-12	3.80552252E-13	-3.41701650E-07	1.09862508E-10	APD	666		
2405-	APC	666	2.0390330E-12	1.11861692E-13	-5.16433829E-08	1.09858969E-10	APD	667		
2406-	APC	667	5.0531781E-13	2.92545520E-14	-8.21826518E-09	1.09858178E-10	APD	668		
2407-	APC	668	3.6675753E-13	5.27548383E-15	-4.42671233E-10	1.09858081E-10	APD	669		
2408-	APC	669	3.03651182E-13	3.592880160E-15	-1.80964285E-10	1.09857942E-10	APD	670		
2409-	APD	670	1.84378012E-13	1.18097357E-15	2.13863233E-11	1.09857873E-10	APD	671		
2410-	APD	671	8.03195401E-14	9.55143466E-17	8.52058528E-12		APD	672		
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2413-	APD	674	-6.45030145E-13	6.70313142E-14	-1.70878448E-13	-6.644709521E-04	APD	675		
2414-	APD	675	-4.4E758065E-12	5.44353855E-15	1.12243201E-12	-9.63376136E-04	APD	676		
2415-	APC	676	-4.2326628E-11	2.25914842E-11	-2.42432741E-11	-9.37140134E-04	APD	677		
2416-	APD	677	-5.61423217E-12	1.77149040E-13	1.20256843E-12	-9.35625518E-04	APD	678		
2417-	APD	678	-2.42584765E-12	7.39973793E-15	1.93903216E-13	-9.35265096E-04	APD	679		
2418-	APD	679	-1.0654758E-12	3.79927748E-15	3.02984769E-14	-9.35187330E-04	APD	680		
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2429-	APD	690	-5.81448512E-06	-2.03914573E-14	-4.94854063E-14	4.71597206E-10	APD	691		
2430-	APC	691	-2.54287976E-06	1.35686401E-14	-7.73237404E-15	4.71557904E-10	APD	692		
2431-	APC	692	-1.0225060E-06	2.42671064E-15	-4.10496730E-16	4.71553241E-10	APD	693		
2432-	APC	693	-6.54293489E-07	2.17815285E-15	-1.84206968E-16	4.71546589E-10	APD	694		

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SORTED BULK DATA ECHO

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2541- *APC 802 4.65000758E-12 -2.89608537E-07 1.56365141E-16 -1.57153901E-10 *APD 803
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2547- *APC 808 6.27543924E-12 1.67174627E-14 1.40492546E-07 9.46703965E-11 *APD 809
2548- *APD 809 5.13011300E-11 1.56445412E-11 -3.64772404E-06 1.06347361E-10 *APD 810
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Volume II

SORTED BULK DATA ECHO

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*APD 856 3.55754847E-12 -1.04737821E-14 2.75373502E-08 1.07592990E-10 *APD 857
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*APD 860 6.36920658E-11 1.53048546E-11 -2.4099207E-06 1.27531374E-10 *APD 861
*APC 861 5.06608150E-11 5.73936804E-12 -1.14019713E-06 1.27065164E-10 *APD 862

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
2601-	*APD 862	2.9024491E-11	2.65266021E-12	3.10810790E-08	1.26893981E-10	*APD 863				
2602-	*APC 863	1.27194089E-11	2.49684930E-13	1.17507000E-02		*APD 864				
2603-	DMI	*PDU2	113	45						
2604-	*APD 865	-2.3666586E-16	8.66679645E-18	-2.36809527E-18	-1.49177431E-04	*APD 866				
2605-	*APC 866	-2.71209163E-15	-5.67559191E-17	1.17024236E-17	-2.49667792E-04	*APD 867				
2606-	*APC 867	-2.06216575E-14	4.60394500E-16	-8.07200429E-17	-3.52073461E-04	*APD 868				
2607-	*APD 868	-1.56239667E-13	-4.10524894E-16	5.17013594E-16	-4.5279929E-04	*APD 869				
2608-	*APC 869	-1.24745179E-12	1.40685478E-13	-1.79111622E-14	-4.94216802E-04	*APD 870				
2609-	*APC 870	-2.94252303E-12	6.22258863E-13	-1.41555658E-13	-5.38871158E-04	*APD 871				
2610-	*APC 871	-6.55653965E-12	2.51645666E-12	-8.7321907E-13	-6.19162107E-04	*APD 872				
2611-	*APD 872	-2.55593324E-11	1.49197547E-11	-1.48222823E-11	-6.06533838E-04	*APD 873				
2612-	*APC 873	-1.27210863E-11	1.17896196E-11	-8.05192371E-12	-5.92079945E-04	*APD 874				
2613-	*APC 874	-5.12450844E-12	3.01394500E-12	-9.10210275E-13	-5.88674564E-04	*APD 875				
2614-	*APC 875	-4.07342329E-12	4.41042710E-13	3.02078986E-14		*APD 876				
2615-	DMI	*PDU2	114	45						
2616-	*APC 877	-8.23884072E-10	-1.89507211E-17	7.37395349E-19	2.41664327E-11	*APD 877				
2617-	*APD 878	-6.63942145E-09	1.24191964E-16	-3.67497552E-18	7.39997091E-11	*APD 878				
2618-	*APC 879	-5.04445067E-08	-1.00681823E-15	2.53349565E-17	1.23444168E-10	*APD 879				
2619-	*APC 880	-3.87486230E-07	8.97649519E-16	-1.62362571E-16	1.74646709E-10	*APD 880				
2620-	*APC 881	-3.05273508E-06	-1.07621387E-13	5.62373923E-15	2.45157006E-10	*APD 881				
2621-	*APC 882	-7.20088701E-05	-1.36062429E-14	4.45151566E-14	2.67307954E-10	*APD 882				
2622-	*APC 883	-1.70287967E-05	-5.50245613E-12	2.74323207E-13	3.07136316E-10	*APD 883				
2623-	*APC 884	-6.25482789E-04	-4.13697549E-11	4.65472626E-12	3.00872216E-10	*APD 884				
2624-	*APD 885	-4.58323583E-04	-2.57705459E-11	2.52848350E-12	2.93702174E-10	*APD 885				
2625-	*APD 886	-2.22291027E-04	-6.59026046E-12	2.85836356E-13	2.92012859E-10	*APD 886				
2626-	*APD 887	-9.56683966E-06	-9.64378750E-13	-9.48635227E-15		*APD 887				
2627-	DMI	*PDU2	115	45						
2628-	*APC 889	1.025794E7E-15	-1.90237549E-11	-7.89653352E-18	-1.34903549E-11	*APD 889				
2629-	*APC 890	8.3471471E-15	1.24580207E-10	3.93948565E-17	-4.13083131E-11	*APD 890				
2630-	*APC 891	6.34445633E-14	-1.01057829E-09	-2.71113859E-16	-6.91348645E-11	*APD 891				
2631-	*APD 892	4.8715143E-13	9.01104409E-10	1.73651114E-15	-9.74917785E-11	*APD 892				
2632-	*APC 893	3.82793431E-12	-3.08407103E-07	-6.0150950E-14	-1.25382815E-10	*APD 893				
2633-	*APD 894	5.05302304E-12	-1.36586821E-06	-4.75442223E-13	-1.36852307E-10	*APD 894				
2634-	*APC 895	2.14067637E-11	-5.52360510E-06	-2.93395959E-12	-1.49217402E-10	*APD 895				
2635-	*APC 896	7.86363056E-11	-4.15202016E-05	-4.92335334E-11	-1.71450604E-10	*APD 896				
2636-	*APD 897	5.76284298E-11	-2.58780110E-05	-2.70827980E-11	-1.67953734E-10	*APD 897				
2637-	*APD 898	2.80726276E-11	-6.61566173E-06	-2.70827980E-11	-1.63951352E-10	*APD 898				
2638-	*APC 899	1.25323640E-11	-9.68096174E-07	-3.05711706E-12	-1.63008357E-10	*APD 899				
2639-	DMI	*PDU2	116	45						
2640-	*APD 901	2.20408243E-15	3.83841715E-17	-4.85098507E-12	7.94943018E-12	*APD 901				
2641-	*APD 902	1.77620099E-14	-2.51364628E-16	2.41763137E-11	2.43418361E-11	*APD 902				
2642-	*APC 903	1.35005357E-13	2.01601076E-15	1.66761452E-10	4.07302451E-11	*APD 903				
2643-	*APD 904	1.03661611E-12	-1.91816469E-15	1.06813315E-09	5.74491704E-11	*APD 904				
2644-	*APD 905	8.16679450E-12	6.23078737E-13	-3.70030393E-08	7.38845790E-11	*APD 905				
2645-	*APC 906	1.92640487E-11	2.75540748E-12	-2.9243247E-07	8.79296359E-11	*APD 906				
2646-	*APD 907	4.55560173E-11	1.11450762E-11	-1.80497032E-06	1.01031045E-10	*APD 907				
2647-	*APD 908	1.67331288E-10	8.37031195E-11	-3.06217118E-05	1.01031045E-10	*APD 908				
2648-	*APC 909	1.22626332E-10	5.22147663E-11	-1.66339451E-05	9.89704291E-11	*APD 909				
2649-	*APD 910	5.57361327E-11	1.31481919E-11	-1.88042486E-06	9.66119407E-11	*APD 910				
2650-	*APC 911	2.6667779E-11	1.95332379E-12	6.24071959E-08	9.60562602E-11	*APD 911				
						*APD 912				

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
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2652-	*APD 913	-2.12112627E-16	3.07458484E-18	-4.64186928E-19	-9.04799235E-05	*APD 913				
2653-	*APC 914	-1.70922544E-15	-2.01857613E-17	2.37507625E-18	-1.51429820E-04	*APD 915				
2654-	*APC 915	-1.25518082E-14	1.62094882E-16	-1.77436329F-17	-2.13539504E-04	*APD 916				
2655-	*APC 916	-9.56725448E-14	-1.91019151E-16	1.24753633E-16	-2.74597434E-04	*APD 917				
2656-	*APC 917	-7.88162880E-13	4.84797376E-14	-4.54447406E-15	-2.99552688E-04	*APD 918				
2657-	*APC 918	-1.85988000E-12	2.10815459E-13	-3.62728815E-14	-3.25877685E-04	*APD 919				
2658-	*APC 919	-4.23420537E-12	8.30126874E-13	-2.16429213E-13	-3.67878234E-04	*APD 920				
2659-	*APD 920	-1.42057052E-11	6.111176474E-12	-4.32943351E-12	-3.83979408E-04	*APD 921				
2660-	*APD 921	-2.08557635E-11	1.04950626E-11	-9.29728083E-12	-3.56788823E-04	*APD 922				
2661-	*APC 922	-6.65820101E-12	2.30626913E-12	-9.62833112E-13	-3.63390427E-04	*APD 923				
2662-	*APC 923	-3.74627759E-12	3.29785027E-13	3.51668021E-14	*APD 924					
2663-	*PCU2	118			45					
2664-	*APC 925	-4.41512771E-19	7.77933333E-18	4.59875181E-20	-4.07073958E-11	*APD 926				
2665-	*APC 926	-3.3451435CE-09	5.10741280E-17	-2.36789789E-19	6.81290857E-11	*APD 927				
2666-	*APD 927	-2.54264054E-03	-4.19133353E-16	1.75405882E-18	9.60725666E-11	*APD 928				
2667-	*APD 928	-1.95070243E-07	4.83317635E-16	-1.23320053E-17	1.24542940E-10	*APD 929				
2668-	*APD 929	-1.52469318E-06	1.22663706E-13	4.49247217E-16	1.34770362E-10	*APD 930				
2669-	*APD 930	-3.56127818E-06	-5.33406544E-13	3.58577846E-15	1.46614193E-10	*APD 931				
2670-	*APC 931	-E.2476663CE-06	-2.10039191E-12	2.14348023E-14	1.65510466E-10	*APD 932				
2671-	*APD 932	-2.78221325E-05	-1.54640190E-11	4.27989707E-12	1.72754450E-10	*APD 933				
2672-	*APC 933	-4.07626648E-05	-2.75667544E-11	9.19048590E-13	1.655020303E-10	*APD 934				
2673-	*APC 934	-1.70233398E-05	-6.03775363E-12	9.51815666E-14	1.63491371E-10	*APD 935				
2674-	*APC 935	-7.3317957E-06	-8.34424035E-13	-3.47446096E-15	*APD 936					
2675-	*PCU2	119			45					
2676-	*APD 937	-4.95190072E-16	7.59599202E-12	-1.890800317E-19	-8.77655761E-12	*APD 937				
2677-	*APD 938	3.95029090E-15	5.18400461E-11	9.24475837E-18	-2.68743720E-11	*APD 938				
2678-	*APC 939	2.03201865E-14	-4.18283674E-10	-6.90654254E-17	-6.34260422E-11	*APD 940				
2679-	*APC 940	2.32691756E-13	4.30565598E-10	4.85591495E-16	-8.15616880E-11	*APD 941				
2680-	*APC 941	1.83067624E-12	-1.24303174E-07	-1.76897380E-14	-8.89739116E-11	*APD 942				
2681-	*APC 942	4.27196993E-12	-5.41405541E-07	-1.41189710E-13	-3.67930736E-11	*APD 943				
2682-	*APC 943	5.6283246CE-12	-2.13188923E-06	-8.43987207E-13	-1.092688178E-10	*APD 944				
2683-	*APC 944	3.8164961E-11	-1.56959140E-05	-1.618413949E-11	-1.14050589E-10	*APD 945				
2684-	*APC 945	4.6591264CE-11	-2.73401310E-05	-3.01897742E-11	-1.90449450E-10	*APD 946				
2685-	*APD 946	2.95064787E-11	-6.12829453E-06	-3.74773823E-12	-1.07935202E-10	*APD 947				
2686-	*APD 947	E.74591805E-12	-8.46937090E-07	1.36805552E-13	*APD 948					
2687-	*PCU2	120			45					
2688-	*APC 949	1.15642726E-15	1.549226032E-17	-1.08169897E-12	5.78678511E-12	*APD 949				
2689-	*APC 950	9.64093578E-15	-1.01714602E-16	5.53466387E-12	1.77196313E-11	*APD 950				
2690-	*APC 951	7.32802885E-14	8.16784342E-16	-4.1347149E-11	2.96560970E-11	*APD 951				
2691-	*APC 952	5.62205985E-13	9.622531607E-16	2.90774564E-10	4.18196866E-11	*APD 952				
2692-	*APD 953	4.42309297E-12	2.44285874E-13	-1.05900355E-08	5.866445593E-11	*APD 954				
2693-	*APC 954	1.03214937E-11	1.06228394E-12	-8.45270165F-08	6.38200881E-11	*APD 955				
2694-	*APC 955	2.3703326E-11	4.10294913E-12	-5.05279331E-07	7.20455084E-11	*APD 956				
2695-	*APD 956	8.03276823E-11	3.07967402E-11	-1.00898220E-05	7.51987639E-11	*APD 957				
2696-	*APD 957	1.17377039E-10	5.48994322F-11	-2.16655462E-05	7.18321375E-11	*APD 958				
2697-	*APC 958	4.90624445E-11	1.29242410E-11	-2.24370069E-06	7.11666143E-11	*APD 959				
2698-	*APC 959	2.11305858E-11	1.66176274E-12	8.19028969F-08	*APD 960					
2699-	*PCU2	121			45					
2700-	*APD 961	-1.2155555CE-16	1.27789479E-18	1.27478820E-19	-8.65572947E-05	*APD 962				

SORTED BULK DATA ECHO

CARD
COUNT
2701- *APC 962 -9.75725952E-16 -8.44334767E-16 -5.73858204E-19 -1.4884651E-04*APD 963
2702- *APD 963 -7.44713739E-15 6.60871252E-17 2.64302496E-18 -2.04279000E-04*APD 964
2703- *APC 964 -5.7644877E-14 -1.26684114E-16 -4.56510640E-18 -2.62647169E-04*APD 965
2704- *APC 965 -4.48013044E-13 1.86603832E-14 4.22232514E-17 -2.86313705E-04*APD 966
2705- *APC 966 -1.02664071E-12 7.72704925E-14 2.8350118E-17 -3.10610281E-04*APD 967
2706- *APD 967 -2.27179213E-12 2.79671955E-13 7.44987500E-15 -3.43543012E-04*APD 968
2707- *APD 968 -6.53703367E-12 1.93260165E-12 -6.1688985E-13 -3.50887189E-04*APD 969
2708- *APC 969 -8.21676754E-12 2.95161378E-12 -1.21357438E-12 -3.92503804E-04*APD 970
2709- *APC 970 -2.37116576E-11 1.60579189E-11 -1.34108311E-11 -3.70889436E-04*APD 971
2710- *APC 971 -7.75063347E-12 1.92003184E-12 -1.01275433E-13 *APD 972
DMI *PDL2 122 45 1.53469043E-11 *APD 973
2711- *APC 973 -2.40597666E-10 -2.15019975E-18 -3.53501336E-20 4.69935757E-11*APD 974
2712- *APD 974 -1.54178067E-09 1.42058601E-17 1.59132282E-19 7.86437395E-11*APD 975
2713- *APC 975 -1.47599475E-08 -1.1119896E-16 -7.32917436E-19 1.10904909E-10*APD 976
2714- *APC 976 -1.13099645E-07 2.13160023E-16 1.26591473E-18 1.42596102E-10*APD 977
2715- *APD 977 -8.875449C7E-07 -3.13981527E-14 -1.1707796E-17 1.55445157E-10*APD 978
2716- *APD 978 -2.03872656E-06 -1.10016169E-13 -7.86236082E-18 1.58615147E-10*APD 979
2717- *APC 979 -4.50260541E-06 -4.70573925E-13 -2.06516931E-15 1.86515969E-10*APD 980
2718- *APD 980 -1.29561531E-05 -3.25181543E-12 1.71084660E-13 1.90503335E-10*APD 981
2719- *APC 981 -1.62851103E-05 -4.96641617E-12 3.36527193E-13 2.13097776E-10*APD 982
2720- *APC 982 -4.69956140E-05 -2.70192202E-11 3.71889155E-12 2.01362899E-10*APD 983
2721- *APD 983 -1.5314528E-05 -3.23066660E-12 2.80839262E-14 *APD 984
DMI *PDL2 123 45 -7.20532488E-12 *APD 985
2722- *APD 985 2.94367484E-16 -2.5382576E-12 3.58159903E-19 -2.2063234E-11*APD 986
2723- *APD 986 2.37179432E-15 1.67705017E-11 -1.61266500E-18 -3.64257819E-11*APD 987
2724- *APC 987 1.60285915E-14 -1.31264880E-10 7.4247049E-18 -5.20704174E-11*APD 988
2725- *APC 988 1.38145951E-13 2.51624943E-10 -1.28241657E-17 -6.69483774E-11*APD 989
2726- *APC 989 1.06458294E-12 -3.70635874E-08 1.13603996E-16 -7.29809685E-11*APD 990
2727- *APC 990 2.45021116E-12 -1.53477686E-07 7.96484666E-17 -7.91740970E-11*APD 991
2728- *APC 991 5.49572481E-12 -5.55405433E-07 2.6275785E-14 -8.75686051E-11*APD 992
2729- *APC 992 1.58253410E-11 -3.83860879E-06 -1.73294452E-12 -8.94406632E-11*APD 993
2730- *APC 993 1.58517685E-11 -5.86261144E-06 -3.40913442E-12 -1.00048678E-10*APD 994
2731- *APC 994 5.74029713E-11 -3.1894732E-05 -3.76732257E-11 -9.45391950E-11*APD 995
2732- *APD 995 1.87613103E-11 -2.81364407E-06 -2.8450017E-13 *APD 996
DMI *PDL2 124 45 4.93643407E-12 *APD 997
2733- *APD 997 6.4732074E-16 4.9635112E-18 2.25469600E-13 1.51157836E-11*APD 998
2734- *APC 998 5.32368335E-15 -3.27959775E-17 -1.0149781E-12 2.5291941E-11*APD 999
2735- *APD 999 4.0466433E-14 2.56698205E-16 4.67467298E-12 3.56739083E-11*APD1000
2736- *APD1000 3.10079924E-13 -4.92071297E-16 -8.07422532E-12 4.58669491E-11*APD1001
2737- *APC1001 2.43443547E-12 7.24813547E-14 7.46742351E-11 4.99999347E-11*APD1002
2738- *APC1002 5.58948200E-12 3.00137140E-13 5.01474834E-11 5.42429012E-11*APD1003
2739- *APD1003 1.23445754E-11 1.08631246E-12 1.31764879E-08 5.99940514E-11*APD1004
2740- *APC1004 3.55212665E-11 7.50668624E-12 -1.0107987E-06 6.12760227E-11*APD1005
2741- *APC1005 4.4048675E-11 1.14647744E-11 -2.14642751E-06 6.25442675E-11*APD1006
2742- *APD1006 1.28645642E-10 6.23728034E-11 -2.37194372E-05 6.47696619E-11*APD1007
2743- *APC1007 4.21157831E-11 7.45786505E-12 -1.79124072E-07 *APD1008
DMI *PDL2 125 45 -1.34280208E-05 *APD1009
2744- *APD1009 -2.15465329E-17 4.01896622E-20 1.89448465E-20 -4.11177462E-05*APD1010
2745- *APC1010 -1.73609130E-16 -2.64014335E-19 -5.89303257E-20 -6.88157452E-05*APD1011
2746- *APC1011 -1.31960893E-15 2.11512064E-18 4.74736956E-19 -9.70389810E-05*APD1012

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CARD COUNT	1	2	3	4	5	6	7	8	9	10
2751-	*APD1012	-1.01133735E-14	-2.63446768E-19	-2.67542636E-18	-1.24755839E-04	*APD1013				
2752-	*APD1013	-7.54048529E-14	6.28967915E-16	2.31471473E-17	-1.35955983E-04	*APD1014				
2753-	*APD1014	-1.82617864E-13	2.72551951E-15	1.27764266E-16	-1.47352010E-04	*APD1015				
2754-	*APC1015	-4.04562251E-13	1.04171636E-14	1.25980022E-15	-1.62256372E-04	*APD1016				
2755-	*APD1016	-1.18706434E-12	1.11912216E-13	9.23095026E-15	-1.65139485E-04	*APD1017				
2756-	*APC1017	-1.42295117E-12	1.51421332E-13	1.99719120E-14	-1.76195567E-04	*APD1018				
2757-	*APC1018	-2.15268645E-12	7.59718637E-13	-4.56546198E-14	-2.10158585E-04	*APD1019				
2758-	*APC1019	-1.46204437E-11	1.01905984E-11	-1.01006972E-11	*APD1020					
2759-	DMI	*PDU2	126	45	6.54880143E-12	*APD1021				
2760-	*APC1021	-4.58718011E-11	-9.60760976E-20	-4.75037547E-21	2.00529870E-11	*APD1022				
2761-	*APC1022	-4.01837008E-10	6.31144132E-19	2.23161330E-20	3.35612098E-11	*APD1023				
2762-	*APC1023	-3.05437675E-09	-5.05634002E-13	-1.19919148E-19	7.3255879E-11	*APD1024				
2763-	*APC1024	-2.340F5071E-08	6.29787360E-18	6.70856867E-19	6.08430112E-11	*APD1025				
2764-	*APC1025	-1.63791201E-07	-1.50359021E-15	-5.80409557E-18	6.63052807E-11	*APD1026				
2765-	*APD1026	-4.22689027E-07	-6.51553667E-15	-3.20365860E-17	7.18630849E-11	*APD1027				
2766-	*APC1027	-9.37229219E-07	-2.49029347E-14	-3.14399261E-16	7.91318955E-11	*APD1028				
2767-	*APC1028	-2.74758986E-06	-2.57533717E-13	-2.31441350E-15	8.0537791E-11	*APD1029				
2768-	*APD1029	-2.31190656E-06	-3.85888587E-13	-5.00790945E-15	8.59251142E-11	*APD1030				
2769-	*APC1030	-7.25723766E-06	-1.91635002E-12	1.14487921E-14	1.02493652E-19	*APD1031				
2770-	*APC1031	-2.36406058E-05	-2.43613046E-11	2.53272577E-12	*APD1032					
2771-	DMI	*PDU2	127	45	-3.89726793E-12	*APD1033				
2772-	*APC1033	6.05395355E-17	-9.58256911E-14	5.81244307E-20	-1.19337725E-11	*APD1034				
2773-	*APC1034	4.87791451E-16	6.29499111E-13	-2.73054853E-19	-1.99726624E-11	*APD1035				
2774-	*APC1035	3.70771732E-15	-5.04316120E-12	1.45653519E-18	-2.81640128E-11	*APD1036				
2775-	*APD1036	2.84156616E-14	6.28145886E-12	-8.20844574E-19	-3.62083835E-11	*APD1037				
2776-	*APC1037	2.22104738E-13	-1.49967128E-09	7.10175119E-17	-3.94590471E-11	*APD1038				
2777-	*APC1039	5.11303503E-13	-6.49855636E-09	3.91992025E-16	-4.27665681E-11	*APD1039				
2778-	*APD1039	1.13792681E-12	-2.48380267E-08	3.89585589E-15	-4.70923162E-11	*APD1040				
2779-	*APC1040	3.32530772E-12	-2.66836423E-07	2.83186154E-14	-4.79290913E-11	*APD1041				
2780-	*APC1041	4.04461187E-12	-3.94882810E-07	6.12758371E-14	-5.11350406E-11	*APD1042				
2781-	*APD1042	6.65813965E-12	-1.91161522E-06	-1.40084667E-13	-6.09251673E-11	*APD1043				
2782-	*APC1043	4.11092234E-11	-2.42978171E-05	-3.09938357E-11	*APD1044					
2783-	DMI	*PDU2	128	45	2.79519029E-12	*APD1045				
2784-	*APC1045	1.37640093E-16	1.86316281E-19	3.93053866E-14	8.55911435E-12	*APD1046				
2785-	*APD1046	1.10910219E-15	-1.22395103E-18	-1.65059089E-13	1.43247584E-11	*APD1047				
2786-	*APC1047	8.42032241E-15	9.00564622E-14	8.64729139E-13	2.01997308E-11	*APD1048				
2787-	*APD1048	4.46092088E-14	-1.22131993E-17	-4.98537691E-12	2.59692962E-11	*APD1049				
2788-	*APC1049	5.07278192E-13	2.91584888E-15	4.31374936E-11	2.83007368E-11	*APD1050				
2789-	*APD1050	1.16665445E-12	1.26351057E-14	2.38103750E-10	3.06729364E-11	*APD1051				
2790-	*APC1051	2.56710154E-12	4.82932074E-14	2.36642439E-09	3.37754409E-11	*APD1052				
2791-	*APD1052	7.58356312E-12	5.10916869E-13	1.72013017E-08	3.43755996E-11	*APD1053				
2792-	*APC1053	9.15632426E-12	7.48337427E-13	3.72203439E-08	3.66749686E-11	*APD1054				
2793-	*APC1054	2.01409445E-11	3.52236990E-12	-8.53990277E-08	4.37468256E-11	*APD1055				
2794-	*APC1055	9.34027439E-11	4.72428624E-11	-1.88238482E-05	*APD1056					
2795-	EIGR	1	GIV	.0	10.64	25	25	0	.0	EIG
2796-	EIG	MAX								
2797-	GRIG	5001	3001	19.96	.0	.0	3001			
2798-	GRIG	5013	5001	9.000	.003	23.000	10002			
2799-	GRIG	5014	5001	9.000	22.500	23.000	10002			
2800-	GRIG	5015	5001	9.000	45.000	23.000	10002			

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
GR1D	5016	5001	9.000	67.500	23.000	10002				
GR1D	5017	5001	9.000	90.000	23.000	10002				
GR1D	5018	5001	9.000	112.500	23.000	10002				
GR1D	5019	5001	9.000	135.000	23.000	10002				
GR1D	5020	5001	9.000	157.500	23.000	10002				
GR1D	5021	5001	9.000	180.000	23.000	10002				
GR1D	5026	5001	14.200	.000	31.930	10003				
GR1D	5027	5001	14.200	22.500	31.930	10003				
GR1D	5028	5001	14.200	45.000	31.930	10003				
GR1D	5029	5001	14.200	67.500	31.930	10003				
GR1D	5030	5001	14.200	90.000	31.930	10003				
GR1D	5031	5001	14.200	112.500	31.930	10003				
GR1D	5032	5001	14.200	135.000	31.930	10003				
GR1D	5033	5001	14.200	157.500	31.930	10003				
GR1D	5034	5001	14.200	180.000	31.930	10003				
GR1D	5035	5001	16.200	.000	40.380	10004				
GR1D	5040	5001	16.200	22.500	40.380	10004				
GR1D	5041	5001	16.200	45.000	40.380	10004				
GR1D	5042	5001	16.200	67.500	40.380	10004				
GR1D	5043	5001	16.200	90.000	40.380	10004				
GR1D	5044	5001	16.200	112.500	40.380	10004				
GR1D	5045	5001	16.200	135.000	40.380	10004				
GR1D	5046	5001	16.200	157.500	40.380	10004				
GR1D	5047	5001	16.200	180.000	40.380	10004				
GR1D	5052	5001	18.000	.000	48.380	10005				
GR1D	5053	5001	18.000	22.500	48.380	10005				
GR1D	5054	5001	18.000	45.000	48.380	10005				
GR1D	5055	5001	18.000	67.500	48.380	10005				
GR1D	5056	5001	18.000	90.000	48.380	10005				
GR1D	5057	5001	18.000	112.500	48.380	10005				
GR1D	5058	5001	18.000	135.000	48.380	10005				
GR1D	5059	5001	18.000	157.500	48.380	10005				
GR1D	5060	5001	18.000	180.000	48.380	10005				
GR1D	5065	5001	19.875	.000	56.280	10006				
GR1D	5066	5001	19.875	22.500	56.280	10006				
GR1D	5067	5001	19.875	45.000	56.280	10006				
GR1D	5068	5001	19.875	67.500	56.280	10006				
GR1D	5069	5001	19.875	90.000	56.280	10006				
GR1D	5070	5001	19.875	112.500	56.280	10006				
GR1D	5071	5001	19.875	135.000	56.280	10006				
GR1D	5072	5001	19.875	157.500	56.280	10006				
GR1D	5073	5001	19.875	180.000	56.280	10006				
GR1D	5078	5001	19.875	.000	65.780	5100				
GR1D	5079	5001	19.875	22.500	65.780	5100				
GR1D	5080	5001	19.875	45.000	65.780	5100				
GR1D	5081	5001	19.875	67.500	65.780	5100				
GR1D	5082	5001	19.875	90.000	65.780	5100				
GR1D	5083	5001	19.875	112.500	65.780	5100				
GR1D	5084	5001	19.875	135.000	65.780	5100				
GR1D	5085	5001	19.875	157.500	65.780	5100				

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SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
GRID	5001	5001	5001	5001	5001	5001	5001			
2351-	5001	5001	5001	5001	5001	5001	5001			
2352-	5001	5001	5001	5001	5001	5001	5001			
2353-	5001	5001	5001	5001	5001	5001	5001			
2354-	5001	5001	5001	5001	5001	5001	5001			
2355-	5001	5001	5001	5001	5001	5001	5001			
2356-	5001	5001	5001	5001	5001	5001	5001			
2357-	5001	5001	5001	5001	5001	5001	5001			
2358-	5001	5001	5001	5001	5001	5001	5001			
2359-	5001	5001	5001	5001	5001	5001	5001			
2360-	5001	5001	5001	5001	5001	5001	5001			
2361-	5001	5001	5001	5001	5001	5001	5001			
2362-	5001	5001	5001	5001	5001	5001	5001			
2363-	5001	5001	5001	5001	5001	5001	5001			
2364-	5001	5001	5001	5001	5001	5001	5001			
2365-	5001	5001	5001	5001	5001	5001	5001			
2366-	5001	5001	5001	5001	5001	5001	5001			
2367-	5001	5001	5001	5001	5001	5001	5001			
2368-	5001	5001	5001	5001	5001	5001	5001			
2369-	5001	5001	5001	5001	5001	5001	5001			
2370-	5001	5001	5001	5001	5001	5001	5001			
2371-	5001	5001	5001	5001	5001	5001	5001			
2372-	5001	5001	5001	5001	5001	5001	5001			
2373-	5001	5001	5001	5001	5001	5001	5001			
2374-	5001	5001	5001	5001	5001	5001	5001			
2375-	5001	5001	5001	5001	5001	5001	5001			
2376-	5001	5001	5001	5001	5001	5001	5001			
2377-	5001	5001	5001	5001	5001	5001	5001			
2378-	5001	5001	5001	5001	5001	5001	5001			
2379-	5001	5001	5001	5001	5001	5001	5001			
2380-	5001	5001	5001	5001	5001	5001	5001			
2381-	5001	5001	5001	5001	5001	5001	5001			
2382-	5001	5001	5001	5001	5001	5001	5001			
2383-	5001	5001	5001	5001	5001	5001	5001			
2384-	5001	5001	5001	5001	5001	5001	5001			
2385-	5001	5001	5001	5001	5001	5001	5001			
2386-	5001	5001	5001	5001	5001	5001	5001			
2387-	5001	5001	5001	5001	5001	5001	5001			
2388-	5001	5001	5001	5001	5001	5001	5001			
2389-	5001	5001	5001	5001	5001	5001	5001			
2390-	5001	5001	5001	5001	5001	5001	5001			
2391-	5001	5001	5001	5001	5001	5001	5001			
2392-	5001	5001	5001	5001	5001	5001	5001			
2393-	5001	5001	5001	5001	5001	5001	5001			
2394-	5001	5001	5001	5001	5001	5001	5001			
2395-	5001	5001	5001	5001	5001	5001	5001			
2396-	5001	5001	5001	5001	5001	5001	5001			
2397-	5001	5001	5001	5001	5001	5001	5001			
2398-	5001	5001	5001	5001	5001	5001	5001			
2399-	5001	5001	5001	5001	5001	5001	5001			
2400-	5001	5001	5001	5001	5001	5001	5001			

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	GRID									
2001-	GRID	5159	5001	12.29	67.5	94.53	10013			
2002-	GRID	5160	5001	12.29	90.0	94.53	10013			
2003-	GRID	5161	5001	12.29	112.5	94.53	10013			
2004-	GRID	5162	5001	12.29	135.0	94.53	10013			
2005-	GRID	5163	5001	12.29	157.5	94.53	10013			
2006-	GRID	5164	5001	12.29	180.0	94.53	10013			
2007-	GRID	5165	5001	9.274	.0	96.083	10014			
2008-	GRID	5170	5001	9.274	22.5	96.083	10014			
2009-	GRID	5171	5001	9.274	45.0	96.083	10014			
2010-	GRID	5172	5001	9.274	67.5	96.083	10014			
2011-	GRID	5173	5001	9.274	90.0	96.083	10014			
2012-	GRID	5174	5001	9.274	112.5	96.083	10014			
2013-	GRID	5175	5001	9.274	135.0	96.083	10014			
2014-	GRID	5176	5001	9.274	157.5	96.083	10014			
2015-	GRID	5177	5001	9.274	180.0	96.083	10014			
2016-	GRID	5182	5001	5.266	.0	97.386	10015			
2017-	GRID	5183	5001	5.266	22.5	97.386	10015			
2018-	GRID	5184	5001	5.266	45.0	97.386	10015			
2019-	GRID	5185	5001	5.266	67.5	97.386	10015			
2020-	GRID	5186	5001	5.266	90.0	97.386	10015			
2021-	GRID	5187	5001	5.266	112.5	97.386	10015			
2022-	GRID	5188	5001	5.266	135.0	97.386	10015			
2023-	GRID	5189	5001	5.266	157.5	97.386	10015			
2024-	GRID	5190	5001	5.266	180.0	97.386	10015			
2025-	GRID	5195	5001	1.785	.0	97.912	10016			
2026-	GRID	5196	5001	1.785	22.5	97.912	10016			
2027-	GRID	5197	5001	1.785	45.0	97.912	10016			
2028-	GRID	5198	5001	1.785	67.5	97.912	10016			
2029-	GRID	5199	5001	1.785	90.0	97.912	10016			
2030-	GRID	5200	5001	1.785	112.5	97.912	10016			
2031-	GRID	5201	5001	1.785	135.0	97.912	10016			
2032-	GRID	5202	5001	1.785	157.5	97.912	10016			
2033-	GRID	5203	5001	1.785	180.0	97.912	10016			
2034-	GRID	5204	5001	.0	.0	97.98	3001			
2035-	GRID	8001	696	101.86	.0	.0	696			
2036-	GRID	8010	69	6.40	.0	102.55	69			
2037-	GRID	8011	69	6.40	22.5	102.55	69			
2038-	GRID	8012	69	6.40	45.0	102.55	69			
2039-	GRID	8013	69	6.40	67.5	102.55	69			
2040-	GRID	8014	69	6.40	90.0	102.55	69			
2041-	GRID	8015	69	6.40	112.5	102.55	69			
2042-	GRID	8016	69	6.40	135.0	102.55	69			
2043-	GRID	8017	69	6.40	157.5	102.55	69			
2044-	GRID	8018	69	6.40	180.0	102.55	69			
2045-	GRID	8020	69	12.61	.0	105.32	69			
2046-	GRID	8021	69	12.61	22.5	105.32	69			
2047-	GRID	8022	69	12.61	45.0	105.32	69			
2048-	GRID	8023	69	12.61	67.5	105.32	69			
2049-	GRID	8024	69	12.61	90.0	105.32	69			
2050-	GRID	8025	69	12.61	112.5	105.32	69			

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	69	69	69	69	69	69	69	69	69	69
2331-	GRID	8036	12.61	135.0	105.32	69				
2332-	GRID	8037	12.61	157.5	105.32	69				
2333-	GRID	8038	12.61	180.0	105.32	69				
2334-	GRID	8039	17.91	.0	110.38	69				
2335-	GRID	8040	17.91	22.5	110.38	69				
2336-	GRID	8041	17.91	45.0	110.38	69				
2337-	GRID	8042	17.91	67.5	110.38	69				
2338-	GRID	8043	17.91	90.0	110.38	69				
2339-	GRID	8044	17.91	112.5	110.38	69				
2340-	GRID	8045	17.91	135.0	110.38	69				
2341-	GRID	8046	17.91	157.5	110.38	69				
2342-	GRID	8047	17.91	180.0	110.38	69				
2343-	GRID	8048	19.80	.0	113.70	69				
2344-	GRID	8049	19.80	22.5	113.70	69				
2345-	GRID	8050	19.80	45.0	113.70	69				
2346-	GRID	8051	19.80	67.5	113.70	69				
2347-	GRID	8052	113.70	-19.41073.9071	69					
2348-	GRID	8053	19.80	90.0	113.70	69				
2349-	GRID	8054	19.80	112.5	113.70	69				
2350-	GRID	8055	19.40	135.0	113.70	69				
2351-	GRID	8056	19.80	157.5	113.70	69				
2352-	GRID	8057	19.80	180.0	113.70	69				
2353-	GRID	8058	19.80	.0	91.98	69				
2354-	GRID	8059	19.80	22.5	91.98	69				
2355-	GRID	8060	19.80	45.0	91.98	69				
2356-	GRID	8061	19.80	67.5	91.98	69				
2357-	GRID	8062	91.98	-19.41073.9071	69					
2358-	GRID	8063	19.80	90.0	91.98	69				
2359-	GRID	8064	19.80	112.5	91.98	69				
2360-	GRID	8065	19.80	135.0	91.98	69				
2361-	GRID	8066	19.80	157.5	91.98	69				
2362-	GRID	8067	19.80	180.0	91.98	69				
2363-	GRID	8068	19.80	.0	99.98	69				
2364-	GRID	8069	19.80	22.5	99.98	69				
2365-	GRID	8070	19.80	45.0	99.98	69				
2366-	GRID	8071	19.80	67.5	99.98	69				
2367-	GRID	8072	99.98	-19.41073.9071	100					
2368-	GRID	8073	19.80	90.0	99.98	69				
2369-	GRID	8074	19.80	112.5	99.98	69				
2370-	GRID	8075	19.80	135.0	99.98	69				
2371-	GRID	8076	19.80	157.5	99.98	69				
2372-	GRID	8077	19.80	180.0	99.98	69				
2373-	GRID	8078	19.80	.0	99.98	69				
2374-	GRID	8079	19.80	22.5	99.98	69				
2375-	GRID	8080	19.80	45.0	99.98	69				
2376-	GRID	8081	19.80	67.5	99.98	69				
2377-	GRID	8082	91.98	-19.41073.9071	69					
2378-	GRID	8083	19.80	90.0	91.98	69				
2379-	GRID	8084	19.80	112.5	91.98	69				
2380-	GRID	8085	19.80	135.0	91.98	69				
2381-	GRID	8086	19.80	157.5	91.98	69				
2382-	GRID	8087	19.80	180.0	91.98	69				
2383-	GRID	8088	19.80	.0	99.98	69				
2384-	GRID	8089	19.80	22.5	99.98	69				
2385-	GRID	8090	19.80	45.0	99.98	69				
2386-	GRID	8091	19.80	67.5	99.98	69				
2387-	GRID	8092	99.98	-19.41073.9071	100					
2388-	GRID	8093	19.80	90.0	99.98	69				
2389-	GRID	8094	19.80	112.5	99.98	69				
2390-	GRID	8095	19.80	135.0	99.98	69				
2391-	GRID	8096	19.80	157.5	99.98	69				
2392-	GRID	8097	19.80	180.0	99.98	69				
2393-	GRID	8098	19.80	.0	99.98	69				
2394-	GRID	8099	19.80	22.5	99.98	69				
2395-	GRID	8100	19.80	45.0	99.98	69				
2396-	GRID	8101	19.80	67.5	99.98	69				
2397-	GRID	8102	106.86	-19.41073.9071	69					
2398-	GRID	8103	19.80	90.0	106.86	69				
2399-	GRID	8104	19.80	112.5	106.86	69				

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Volume II

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3001-	GRID	8127	19.80	135.0	106.86	69				
3002-	GRID	8128	19.80	157.5	106.86	69				
3003-	GRID	8129	19.80	180.0	106.86	69				
3004-	GRID	8170	19.80	.0	129.35	5100				
3005-	GRID	8171	19.80	22.5	128.35	5100				
3006-	GRID	8172	19.80	45.0	128.35	5100				
3007-	GRID	8173	19.80	67.5	128.35	5100				
3008-	GRID	8174	19.80	90.0	128.35	5100				
3009-	GRID	8175	19.80	112.5	128.35	5100				
3010-	GRID	8176	19.80	135.0	128.35	5100				
3011-	GRID	8177	19.80	157.5	128.35	5100				
3012-	GRID	8178	19.80	180.0	128.35	5100				
3013-	GRID	8150	19.80	.0	139.06	5100				
3014-	GRID	8151	19.80	22.5	139.06	5100				
3015-	GRID	8152	19.80	45.0	139.06	5100				
3016-	GRID	8153	19.80	67.5	139.06	5100				
3017-	GRID	8194	19.80	90.0	139.06	5100				
3018-	GRID	8156	19.80	112.5	139.06	5100				
3019-	GRID	8157	19.80	135.0	139.06	5100				
3020-	GRID	8197	19.80	157.5	139.06	5100				
3021-	GRID	8158	19.80	180.0	139.06	5100				
3022-	GRID	8205	148.756	.0	21.9561	696	1456			
3023-	GRID	8210	19.80	.0	149.756	5100				
3024-	GRID	8211	19.80	22.5	148.756	5100				
3025-	GRID	8212	19.80	45.0	148.756	5100				
3026-	GRID	8213	19.80	67.5	148.756	5100				
3027-	GRID	8214	19.80	90.0	148.756	5100				
3028-	GRID	8215	19.80	112.5	148.756	5100				
3029-	GRID	8216	19.80	135.0	148.756	5100				
3030-	GRID	8217	19.80	157.5	148.756	5100				
3031-	GRID	8218	19.80	180.0	148.756	5100				
3032-	GRID	8230	19.80	.0	168.75	5100				
3033-	GRID	8231	19.80	22.5	168.75	5100				
3034-	GRID	8232	19.80	45.0	168.75	5100				
3035-	GRID	8233	19.80	67.5	168.75	5100				
3036-	GRID	8234	19.80	90.0	168.75	5100				
3037-	GRID	8235	19.80	112.5	168.75	5100				
3038-	GRID	8236	19.80	135.0	168.75	5100				
3039-	GRID	8237	19.80	157.5	168.75	5100				
3040-	GRID	8238	19.80	180.0	168.75	5100				
3041-	GRID	8250	19.80	.0	188.75	5100				
3042-	GRID	8251	19.80	22.5	188.75	5100				
3043-	GRID	8252	19.80	45.0	188.75	5100				
3044-	GRID	8253	19.80	67.5	188.75	5100				
3045-	GRID	8254	19.80	90.0	188.75	5100				
3046-	GRID	8255	19.80	112.5	188.75	5100				
3047-	GRID	8256	19.80	135.0	188.75	5100				
3048-	GRID	8257	19.80	157.5	188.75	5100				
3049-	GRID	8258	19.80	180.0	188.75	5100				
3050-	GRID	8270	19.80	.0	209.13	5100				

ORIGINAL PAGE IS
OF POOR QUALITY

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3051-	GRIC	8271	69	19.80	22.5	209.13	5100			
3052-	GRIC	8272	69	19.80	45.0	209.13	5100			
3051-	GRIC	8273	69	19.80	67.5	209.13	5100			
3054-	GRIC	8274	69	19.80	90.0	209.13	5100			
3055-	GRIC	8275	69	19.80	112.5	209.13	5100			
3056-	GRIC	8276	69	19.80	135.0	209.13	5100			
3057-	GRIC	8277	69	19.80	157.5	209.13	5100			
3058-	GRIC	8278	69	19.80	180.0	209.13	5100			
3059-	GRIC	8279	69	19.80	0	209.13	5100			
3060-	GRIC	8280	69	19.80	22.5	229.156	5100			
3061-	GRIC	8281	69	19.80	45.0	229.156	5100			
3062-	GRIC	8282	69	19.80	67.5	229.156	5100			
3063-	GRIC	8283	69	19.80	90.0	229.156	5100			
3064-	GRIC	8284	69	19.80	112.5	229.156	5100			
3065-	GRIC	8285	69	19.80	135.0	229.156	5100			
3066-	GRIC	8286	69	19.80	157.5	229.156	5100			
3067-	GRIC	8287	69	19.80	180.0	229.156	5100			
3068-	GRIC	8288	69	229.156	0	0	676	456		
3069-	GRIC	8289	69	19.80	0	237.30	5100			
3070-	GRIC	8290	69	19.80	22.5	237.30	5100			
3071-	GRIC	8291	69	19.80	45.0	237.30	5100			
3072-	GRIC	8292	69	19.80	67.5	237.30	5100			
3073-	GRIC	8293	69	19.80	90.0	237.30	5100			
3074-	GRIC	8294	69	19.80	112.5	237.30	5100			
3075-	GRIC	8295	69	19.80	135.0	237.30	5100			
3076-	GRIC	8296	69	19.80	157.5	237.30	5100			
3077-	GRIC	8297	69	19.80	180.0	237.30	5100			
3078-	GRIC	8298	69	245.7536	0	24.9514	676	456		
3079-	GRIC	8299	69	245.7536	13.75	24.9514	3002	12456		
3080-	GRIC	8300	69	19.80	0	245.7536	5100			
3081-	GRIC	8301	69	19.80	11.25	245.7536	5100			
3082-	GRIC	8302	69	19.80	22.5	245.7536	5100			
3083-	GRIC	8303	69	19.80	45.0	245.7536	5100			
3084-	GRIC	8304	69	19.80	67.5	245.7536	5100			
3085-	GRIC	8305	69	19.80	90.0	245.7536	5100			
3086-	GRIC	8306	69	19.80	112.5	245.7536	5100			
3087-	GRIC	8307	69	19.80	135.0	245.7536	5100			
3088-	GRIC	8308	69	19.80	157.5	245.7536	5100			
3089-	GRIC	8309	69	19.80	180.0	245.7536	5100			
3090-	GRIC	8310	69	245.7536	0	0	696	456		
3091-	GRIC	8311	69	19.80	0	270.983	69			
3092-	GRIC	8312	69	19.80	22.5	270.983	69			
3093-	GRIC	8313	69	270.988	-14.9702	12.9588	101			
3094-	GRIC	8314	69	19.80	67.5	270.983	69			
3095-	GRIC	8315	69	19.80	90.0	270.983	69			
3096-	GRIC	8316	69	270.988	-18.8181	-6.1577	101			
3097-	GRIC	8317	69	19.80	135.0	270.983	69			
3098-	GRIC	8318	69	19.80	157.5	270.983	69			
3099-	GRIC	8319	69	19.80	180.0	270.983	69			
3100-	GRIC	8320	69	270.988	-14.9702	12.9588	101			

EXTERNAL LINK 4. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

CARD	1	2	3	4	5	6	7	8	9	10
GRUNT	1	2	3	4	5	6	7	8	9	10
3101-	8355	696	270.988	.0	12.9588	696	456			
3102-	8360	696	270.988	.0	-6.1577	696	456			
3103-	8370	69	19.80	.0	258.125	20014				
3104-	8371	69	19.80	22.5	258.125	20014				
3105-	8372	69	19.80	45.0	258.125	20014				
3106-	8373	69	19.80	67.5	258.125	20014				
3107-	8374	69	19.80	90.0	258.125	20014				
3108-	8375	69	19.80	112.5	258.125	20014				
3109-	8376	69	19.80	135.0	258.125	20014				
3110-	8377	69	19.80	157.5	258.125	20014				
3111-	8378	69	19.80	180.0	258.125	20014				
3112-	8390	69	17.91	.0	260.92	20015				
3113-	8391	69	17.91	22.5	260.92	20015				
3114-	8392	69	17.91	45.0	260.92	20015				
3115-	8393	69	17.91	67.5	260.92	20015				
3116-	8394	69	17.91	90.0	260.92	20015				
3117-	8395	69	17.91	112.5	260.92	20015				
3118-	8396	69	17.91	135.0	260.92	20015				
3119-	8397	69	17.91	157.5	260.92	20015				
3120-	8398	69	17.91	180.0	260.92	20015				
3121-	8410	69	12.61	.0	265.98	20016				
3122-	8411	69	12.61	22.5	265.98	20016				
3123-	8412	69	12.61	45.0	265.98	20016				
3124-	8413	69	12.61	67.5	265.98	20016				
3125-	8414	69	12.61	90.0	265.98	20016				
3126-	8415	69	12.61	112.5	265.98	20016				
3127-	8416	69	12.61	135.0	265.98	20016				
3128-	8417	69	12.61	157.5	265.98	20016				
3129-	8418	69	12.61	180.0	265.98	20016				
3130-	8420	69	6.40	.0	269.75	20017				
3131-	8421	69	6.40	22.5	269.75	20017				
3132-	8422	69	6.40	45.0	269.75	20017				
3133-	8423	69	6.40	67.5	269.75	20017				
3134-	8424	69	6.40	90.0	269.75	20017				
3135-	8425	69	6.40	112.5	269.75	20017				
3136-	8426	69	6.40	135.0	269.75	20017				
3137-	8427	69	6.40	157.5	269.75	20017				
3138-	8428	69	6.40	180.0	269.75	20017				
3139-	8440	696	269.44	.0	.0	696				
3140-	100200	5100	9.		23.	10002				
3141-	100201	5100	9.		23.	10002				
3142-	100202	5100	9.		23.	10002				
3143-	100203	5100	9.		23.	10002				
3144-	100204	5100	14.2		31.93	10003				
3145-	100205	5100	14.2		31.93	10003				
3146-	100206	5100	14.2		31.93	10003				
3147-	100207	5100	14.2		31.93	10003				
3148-	100208	5100	16.2		40.38	10004				
3149-	100209	5100	16.2		40.38	10004				
3150-	100210	5100	16.2		40.38	10004				

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3151-	GRIC	100403	5100	16.2	40.38	10004				
3152-	GRID	100500	5100	18.0	48.38	10005				
3153-	GRIC	100501	5100	18.0	48.38	10005				
3154-	GRIC	100502	5100	18.0	49.38	10005				
3155-	GRIC	100503	5100	18.0	48.38	10005				
3156-	GRID	100500	5100	19.875	56.38	10006				
3157-	GRID	100601	5100	19.875	56.38	10006				
3158-	GRID	100602	5100	19.875	56.38	10006				
3159-	GRID	100603	5100	19.875	56.38	10006				
3160-	GRIC	100700	5100	19.875	65.78	5100				
3161-	GRIC	100701	5100	19.875	65.78	5100				
3162-	GRIC	100702	5100	19.875	65.78	5100				
3163-	GRIC	100703	5100	19.875	65.78	5100				
3164-	GRIC	100800	5100	19.875	71.78	5100				
3165-	GRIC	100801	5100	19.875	71.78	5100				
3166-	GRIC	100802	5100	19.875	71.78	5100				
3167-	GRID	100803	5100	19.875	71.78	5100				
3168-	GRIC	100900	5100	19.875	77.78	5100				
3169-	GRIC	100901	5100	19.875	77.78	5100				
3170-	GRIC	100902	5100	19.875	77.78	5100				
3171-	GRIC	100903	5100	19.875	77.78	5100				
3172-	GRID	101000	5100	19.875	83.78	10010				
3173-	GRIC	101001	5100	19.875	83.78	10010				
3174-	GRIC	101002	5100	19.875	83.78	10010				
3175-	GRIC	101003	5100	19.875	83.78	10010				
3176-	GRIC	101100	5100	18.54	87.93	10011				
3177-	GRIC	101101	5100	18.54	87.93	10011				
3178-	GRIC	101102	5100	18.54	87.93	10011				
3179-	GRIC	101103	5100	18.54	87.93	10011				
3180-	GRID	101200	5100	16.29	91.28	10012				
3181-	GRID	101201	5100	16.29	91.28	10012				
3182-	GRIC	101202	5100	16.29	91.28	10012				
3183-	GRIC	101203	5100	16.29	91.28	10012				
3184-	GRIC	101300	5100	12.29	94.53	10013				
3185-	GRIC	101301	5100	12.29	94.53	10013				
3186-	GRIC	101302	5100	12.29	94.53	10013				
3187-	GRIC	101303	5100	12.29	94.53	10013				
3188-	GRIC	101400	5100	9.274	96.083	10014				
3189-	GRIC	101401	5100	9.274	96.083	10014				
3190-	GRIC	101402	5100	9.274	96.083	10014				
3191-	GRIC	101403	5100	9.274	96.083	10014				
3192-	GRID	101500	5100	5.266	97.386	10015				
3193-	GRID	101501	5100	5.266	97.386	10015				
3194-	GRID	101502	5100	5.266	97.386	10015				
3195-	GRID	101503	5100	5.266	97.386	10015				
3196-	GRIC	101600	5100	1.7875	97.912	10016				
3197-	GRIC	101601	5100	1.7875	97.912	10016				
3198-	GRIC	101602	5100	1.7875	97.912	10016				
3199-	GRIC	101603	5100	1.7875	97.912	10016				
3200-	GRIC	110100	69	19.8	91.98	69				

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3201- GRID	110101 69	19.8	69	91.98	69	91.98	69	91.98	69	91.98
3202- GRID	110102 69	19.8	69	91.98	69	91.98	69	91.98	69	91.98
3203- GRID	110103 69	19.8	69	91.98	69	91.98	69	91.98	69	91.98
3204- GRID	110200 69	19.8	69	99.98	69	99.98	69	99.98	69	99.98
3205- GRID	110201 69	19.8	69	99.98	69	99.98	69	99.98	69	99.98
3206- GRID	110202 69	19.8	69	99.98	69	99.98	69	99.98	69	99.98
3207- GRID	110203 69	19.8	69	99.98	69	99.98	69	99.98	69	99.98
3208- GRID	110300 69	19.8	69	106.86	69	106.86	69	106.86	69	106.86
3209- GRID	110301 69	19.8	69	106.86	69	106.86	69	106.86	69	106.86
3210- GRID	110302 69	19.8	69	106.86	69	106.86	69	106.86	69	106.86
3211- GRID	110303 69	19.8	69	106.86	69	106.86	69	106.86	69	106.86
3212- GRID	110400 69	19.8	69	113.70	69	113.70	69	113.70	69	113.70
3213- GRID	110401 69	19.8	69	113.70	69	113.70	69	113.70	69	113.70
3214- GRID	110402 69	19.8	69	113.70	69	113.70	69	113.70	69	113.70
3215- GRID	110403 69	19.8	69	113.70	69	113.70	69	113.70	69	113.70
3216- GRID	110500 69	19.8	69	128.75	69	128.75	69	128.75	69	128.75
3217- GRID	110501 69	19.8	69	128.75	69	128.75	69	128.75	69	128.75
3218- GRID	110502 69	19.8	69	128.75	69	128.75	69	128.75	69	128.75
3219- GRID	110503 69	19.8	69	128.75	69	128.75	69	128.75	69	128.75
3220- GRID	110600 69	19.8	69	139.06	69	139.06	69	139.06	69	139.06
3221- GRID	110601 69	19.8	69	139.06	69	139.06	69	139.06	69	139.06
3222- GRID	110602 69	19.8	69	139.06	69	139.06	69	139.06	69	139.06
3223- GRID	110603 69	19.8	69	139.06	69	139.06	69	139.06	69	139.06
3224- GRID	110700 69	19.8	69	148.756	69	148.756	69	148.756	69	148.756
3225- GRID	110701 69	19.8	69	148.756	69	148.756	69	148.756	69	148.756
3226- GRID	110702 69	19.8	69	148.756	69	148.756	69	148.756	69	148.756
3227- GRID	110703 69	19.8	69	148.756	69	148.756	69	148.756	69	148.756
3228- GRID	110800 69	19.8	69	168.75	69	168.75	69	168.75	69	168.75
3229- GRID	110801 69	19.8	69	168.75	69	168.75	69	168.75	69	168.75
3230- GRID	110802 69	19.8	69	168.75	69	168.75	69	168.75	69	168.75
3231- GRID	110803 69	19.8	69	168.75	69	168.75	69	168.75	69	168.75
3232- GRID	110900 69	19.8	69	188.75	69	188.75	69	188.75	69	188.75
3233- GRID	110901 69	19.8	69	188.75	69	188.75	69	188.75	69	188.75
3234- GRID	110902 69	19.8	69	188.75	69	188.75	69	188.75	69	188.75
3235- GRID	110903 69	19.8	69	188.75	69	188.75	69	188.75	69	188.75
3236- GRID	111000 69	19.8	69	209.13	69	209.13	69	209.13	69	209.13
3237- GRID	111001 69	19.8	69	209.13	69	209.13	69	209.13	69	209.13
3238- GRID	111002 69	19.8	69	209.13	69	209.13	69	209.13	69	209.13
3239- GRID	111003 69	19.8	69	209.13	69	209.13	69	209.13	69	209.13
3240- GRID	111100 69	19.8	69	229.156	69	229.156	69	229.156	69	229.156
3241- GRID	111101 69	19.8	69	229.156	69	229.156	69	229.156	69	229.156
3242- GRID	111102 69	19.8	69	229.156	69	229.156	69	229.156	69	229.156
3243- GRID	111103 69	19.8	69	229.156	69	229.156	69	229.156	69	229.156
3244- GRID	111200 69	19.8	69	237.30	69	237.30	69	237.30	69	237.30
3245- GRID	111201 69	19.8	69	237.30	69	237.30	69	237.30	69	237.30
3246- GRID	111202 69	19.8	69	237.30	69	237.30	69	237.30	69	237.30
3247- GRID	111203 69	19.8	69	237.30	69	237.30	69	237.30	69	237.30
3248- GRID	111300 69	19.8	69	245.753669	69	245.753669	69	245.753669	69	245.753669
3249- GRID	111301 69	19.8	69	245.753669	69	245.753669	69	245.753669	69	245.753669
3250- GRID	111302 69	19.8	69	245.753669	69	245.753669	69	245.753669	69	245.753669

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OF POOR QUALITY

Volume II

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
GRID	111203 69	19.8			255.753669					
GRID	111400 69	19.8			258.125 20014					
GRID	111401 69	19.8			258.125 20014					
GRID	111402 69	19.8			258.125 20014					
GRID	111403 69	19.8			258.125 20014					
GRID	111500 69	17.91			260.92 20015					
GRID	111501 69	17.91			260.92 20015					
GRID	111502 69	17.91			260.92 20015					
GRID	111503 69	17.91			260.92 20015					
GRID	111600 69	12.61			265.98 20016					
GRID	111601 69	12.61			265.98 20016					
GRID	111602 69	12.61			265.98 20016					
GRID	111603 69	12.61			265.98 20016					
GRID	111700 69	6.40			268.75 20017					
GRID	111701 69	6.40			268.75 20017					
GRID	111702 69	6.40			268.75 20017					
GRID	111703 69	6.40			268.75 20017					
MAT1	5517 10.536			.3	2.6-4					
MAT1	8010 1.0537			.30	.00031					
MAT1	8400 1.0537			.30	.000052					
MAT1	8500 1.0537			.30						
MAT1	8600 1.0537			.30						
MPC	1 5013 1			-1.	100200 1	1.00000				CM501311
CM501311	100201			1 1.00000	100202	1 1.00000				CM501321
CM501321	100203			1 1.00000						
MPC	1 5013 2			-1.	100200 2	1.00000				CM501312
CM501312	100201			2 1.00000	100202	2 1.00000				CM501322
CM501322	100203			2 1.00000						
MPC	1 5013 3			-1.	100200 3	.0				CM501313
CM501313	100201			3 0.0	100202	3 0.0				CM501323
CM501323	100203			3 0.0						
MPC	1 5013 4			-1.	100200 4	.0				CM501314
CM501314	100201			4 0.0	100202	4 0.0				CM501324
CM501324	100203			4 0.0						
MPC	1 5013 5			-1.	100200 5	.0				CM501315
CM501315	100201			5 0.0	100202	5 0.0				CM501325
CM501325	100203			5 0.0						
MPC	1 5013 6			-1.	100200 6	1.00000				CM501316
CM501316	100201			6 1.00000	100202	6 1.00000				CM501326
CM501326	100203			6 1.00000						
MPC	1 5014 1			-1.	100200 1	1.00000				CM501411
CM501411	100201			1 0.92388	100202	1 0.70711				CM501421
CM501421	100203			1 0.38268						
MPC	1 5014 2			-1.	100200 2	1.00000				CM501412
CM501412	100201			2 0.92388	100202	2 0.70711				CM501422
CM501422	100203			2 0.38268						
MPC	1 5014 3			-1.	100200 3	.0				CM501413
CM501413	100201			3 0.38268	100202	3 0.70711				CM501423
CM501423	100203			3 0.92398						
MPC	1 5014 4			-1.	100200 4	.0				CM501414

EXTERNAL TANK 1. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO										
CARD	1	2	3	4	5	6	7	8	9	10
3101- COUNT										
3102- CM501414	100201	4	0.9268	100202	4	0.70711				CM501424
3103- CM501424	100203	4	0.92388							
3104- MPC	5014	5	-1.	100200	5	0				CM501415
3105- CM501415	100201	5	0.9268	100202	5	0.70711				CM501425
3106- CM501425	100203	5	0.92388							
3107- MPC	5014	6	-1.	100200	6	1.00000				CM501416
3108- CM501416	100201	6	0.92388	100202	6	0.70711				CM501426
3109- CM501426	100203	6	0.9268							
3110- MPC	5015	1	-1.	100200	1	1.00000				CM501511
3111- CM501511	100201	1	0.70711	100202	1	0.00000				CM501521
3112- CM501521	100203	1	-0.70711							
3113- MPC	5015	2	-1.	100200	2	1.00000				CM501512
3114- CM501512	100201	2	0.70711	100202	2	0.00000				CM501522
3115- CM501522	100203	2	-0.70711							
3116- MPC	5015	3	-1.	100200	3	0				CM501513
3117- CM501513	100201	3	0.70711	100202	3	1.00000				CM501523
3118- CM501523	100203	3	0.70711							
3119- MPC	5015	4	-1.	100200	4	0				CM501514
3120- CM501514	100201	4	0.70711	100202	4	1.00000				CM501524
3121- CM501524	100203	4	0.70711							
3122- MPC	5015	5	-1.	100200	5	0				CM501515
3123- CM501515	100201	5	0.70711	100202	5	1.00000				CM501525
3124- CM501525	100203	5	0.70711							
3125- MPC	5015	6	-1.	100200	6	1.00000				CM501516
3126- CM501516	100201	6	0.70711	100202	6	0.00000				CM501526
3127- CM501526	100203	6	-0.70711							
3128- MPC	5016	1	-1.	100200	1	1.00000				CM501611
3129- CM501611	100201	1	0.9268	100202	1	0.70711				CM501621
3130- CM501621	100203	1	0.92388							
3131- MPC	5016	2	-1.	100200	2	1.00000				CM501612
3132- CM501612	100201	2	0.9268	100202	2	0.70711				CM501622
3133- CM501622	100203	2	-0.92388							
3134- MPC	5016	3	-1.	100200	3	0				CM501613
3135- CM501613	100201	3	0.92388	100202	3	0.70711				CM501623
3136- CM501623	100203	3	-0.9268							
3137- MPC	5016	4	-1.	100200	4	0				CM501614
3138- CM501614	100201	4	0.92388	100202	4	0.70711				CM501624
3139- CM501624	100203	4	-0.9268							
3140- MPC	5016	5	-1.	100200	5	0				CM501615
3141- CM501615	100201	5	0.92388	100202	5	0.70711				CM501625
3142- CM501625	100203	5	-0.9268							
3143- MPC	5016	6	-1.	100200	6	1.00000				CM501616
3144- CM501616	100201	6	0.9268	100202	6	0.70711				CM501626
3145- CM501626	100203	6	-0.92388							
3146- MPC	5017	1	-1.	100200	1	1.00000				CM501711
3147- CM501711	100201	1	0.00000	100202	1	-1.00000				CM501721
3148- CM501721	100203	1	-0.00000							
3149- MPC	5017	2	-1.	100200	2	1.00000				CM501712
3150- CM501712	100201	2	0.00000	100202	2	-1.00000				CM501722
3151- CM501722	100203	2	-0.00000							

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3301-	1	5017	3	-1.	100200	3	0	0.00000	0	0
3302-	1	100201	3	3 1.00000	100202					0
3303-	1	100203	3	3-1.00000						0
3304-	1	5017	4	-1.	100200	4	0	0.00000	0	0
3305-	1	100201	4	4 1.00000	100202					0
3306-	1	100203	4	4-1.00000						0
3307-	1	5017	5	-1.	100200	5	0	0.00000	0	0
3308-	1	100201	5	5 1.00000	100202					0
3309-	1	100203	5	5-1.00000						0
3310-	1	5017	6	-1.	100200	6	1	0.00000	0	0
3311-	1	100201	6	6 0.00000	100202					0
3312-	1	100203	6	6-0.00000						0
3313-	1	5018	1	-1.	100200	1	1	0.00000	0	0
3314-	1	100201	1	1-0.38268	100202					0
3315-	1	100203	1	1 0.92388						0
3316-	1	5018	2	-1.	100200	2	1	0.00000	0	0
3317-	1	100201	2	2-0.38268	100202					0
3318-	1	100203	2	2 0.92388						0
3319-	1	5018	3	-1.	100200	3	0	0.00000	0	0
3320-	1	100201	3	3 0.92388	100202					0
3321-	1	100203	3	3-0.38268						0
3322-	1	5018	4	-1.	100200	4	0	0.00000	0	0
3323-	1	100201	4	4 0.92388	100202					0
3324-	1	100203	4	4-0.38268						0
3325-	1	5018	5	-1.	100200	5	0	0.00000	0	0
3326-	1	100201	5	5 0.92388	100202					0
3327-	1	100203	5	5-0.38268						0
3328-	1	5018	6	-1.	100200	6	1	0.00000	0	0
3329-	1	100201	6	6-0.38268	100202					0
3330-	1	100203	6	6 0.92388						0
3331-	1	5019	1	-1.	100200	1	1	0.00000	0	0
3332-	1	100201	1	1-0.70711	100202					0
3333-	1	100203	1	1 0.70711						0
3334-	1	5019	2	-1.	100200	2	1	0.00000	0	0
3335-	1	100201	2	2-0.70711	100202					0
3336-	1	100203	2	2 0.70711						0
3337-	1	5019	3	-1.	100200	3	0	0.00000	0	0
3338-	1	100201	3	3 0.70711	100202					0
3339-	1	100203	3	3 0.70710						0
3340-	1	5019	4	-1.	100200	4	0	0.00000	0	0
3341-	1	100201	4	4 0.70711	100202					0
3342-	1	100203	4	4 0.70710						0
3343-	1	5019	5	-1.	100200	5	0	0.00000	0	0
3344-	1	100201	5	5 0.70711	100202					0
3345-	1	100203	5	5 0.70710						0
3346-	1	5019	6	-1.	100200	6	1	0.00000	0	0
3347-	1	100201	6	6-0.70711	100202					0
3348-	1	100203	6	6 0.70711						0
3349-	1	5020	1	-1.	100200	1	1	0.00000	0	0
3350-	1	100201	1	1-0.92388	100202					0

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3401- CM502021	1	2	3	4	5	6	7	8	9	10
3402- MPC	100201	5020	2	1-0.38268	100200	2	1.00000			CM502012
3403- CM502012	100201	5020	2	-1.	100200	2	1.00000			CM502022
3404- CM502022	100203	100203	3	2-0.92388	100202	3	2 0.70711			
3405- MPC	5020	3	3	2-0.38268	100200	3				CM502013
3406- CM502013	100201	5020	3	-1.	100200	3	.0			CM502023
3407- CM502023	100203	100203	3	3 0.92388	100202	3	3-0.70711			
3408- MPC	5020	4	4	-1.	100200	4	.0			CM502014
3409- CM502014	100201	5020	4	4 0.38268	100202	4	4-0.70711			CM502024
3410- CM502024	100203	100203	4	4 0.92388	100202	4				
3411- MPC	5020	5	5	-1.	100200	5	.0			CM502015
3412- CM502015	100201	5020	5	5 0.38268	100202	5	5-0.70711			CM502025
3413- CM502025	100203	100203	5	5 0.92388	100202	5				
3414- MPC	5020	6	6	-1.	100200	6	1.00000			CM502016
3415- CM502016	100201	5020	6	6-0.92388	100202	6	6 0.70711			CM502026
3416- CM502026	100203	100203	6	6-0.38268	100202	6				
3417- MPC	5021	1	1	-1.	100200	1	1.00000			CM502111
3418- CM502111	100201	5021	1	1-1.00000	100202	1	1 1.00000			CM502121
3419- CM502121	100203	100203	2	1-1.00000	100202	2				
3420- MPC	5021	2	2	-1.	100200	2	1.00000			CM502112
3421- CM502112	100201	5021	2	2-1.00000	100202	2	2 1.00000			CM502122
3422- CM502122	100203	100203	3	2-1.00000	100202	3				
3423- MPC	5021	3	3	-1.	100200	3	.0			CM502113
3424- CM502113	100201	5021	3	3 0.00000	100202	3	3-0.00000			CM502123
3425- CM502123	100203	100203	4	3 0.00000	100202	4				
3426- MPC	5021	4	4	-1.	100200	4	.0			CM502114
3427- CM502114	100201	5021	4	4 0.00000	100202	4	4-0.00000			CM502124
3428- CM502124	100203	100203	5	4 0.00000	100202	5				
3429- MPC	5021	5	5	-1.	100200	5	.0			CM502115
3430- CM502115	100201	5021	5	5 0.00000	100202	5	5-0.00000			CM502125
3431- CM502125	100203	100203	6	5 0.00000	100202	6				
3432- MPC	5021	6	6	-1.	100200	6	1.00000			CM502116
3433- CM502116	100201	5021	6	6-1.00000	100202	6	6 1.00000			CM502126
3434- CM502126	100203	100203	1	6-1.00000	100202	1				
3435- MPC	5026	1	1	-1.	100300	1	1.00000			CM502611
3436- CM502611	100301	5026	1	1 1.00000	100302	1	1.00000			CM502621
3437- CM502621	100303	100303	2	1 1.00000	100302	2				
3438- MPC	5026	2	2	-1.	100300	2	1.00000			CM502612
3439- CM502612	100301	5026	2	2 1.00000	100302	2	2 1.00000			CM502622
3440- CM502622	100303	100303	3	2 1.00000	100302	3				
3441- MPC	5026	3	3	-1.	100300	3	.0			CM502613
3442- CM502613	100301	5026	3	3 0.0	100302	3	3 0.0			CM502623
3443- CM502623	100303	100303	4	3 0.0	100302	4				
3444- MPC	5026	4	4	-1.	100300	4	.0			CM502614
3445- CM502614	100301	5026	4	4 0.0	100302	4	4 0.0			CM502624
3446- CM502624	100303	100303	5	4 0.0	100302	5				
3447- MPC	5026	5	5	-1.	100300	5	.0			CM502615
3448- CM502615	100301	5026	5	5 0.0	100302	5	5 0.0			CM502625
3449- CM502625	100303	100303	6	5 0.0	100302	6				
3450- MPC	5026	6	6	-1.	100300	6	1.00000			CM502616

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CARD COUNT	1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 ..
3450- CMS02616	1 100301			6 1.00000	100302		6 1.00000			CMS02626
3451- CMS02626	1 100303			6 1.00000						
3452- MPC	5027	1		-1.	100300	1	1.00000			CMS02711
3453- CMS02711	100301			1 0.92388	100302		1 0.70711			CMS02721
3454- CMS02721	100303			1 0.38268						
3455- MPC	5027	2		-1.	100300	2	1.00000			CMS02712
3456- CMS02712	100301			2 0.92388	100302		2 0.70711			CMS02722
3457- CMS02722	100303			2 0.38268						
3458- MPC	5027	3		-1.	100300	3	.0			CMS02713
3459- CMS02713	100301			3 0.38268	100302		3 0.70711			CMS02723
3460- CMS02723	100303			3 0.92388						
3461- MPC	5027	4		-1.	100300	4	.0			CMS02714
3462- CMS02714	100301			4 0.38268	100302		4 0.70711			CMS02724
3463- CMS02724	100303			4 0.92388						
3464- MPC	5027	5		-1.	100300	5	.0			CMS02715
3465- CMS02715	100301			5 0.38268	100302		5 0.70711			CMS02725
3466- CMS02725	100303			5 0.92388						
3467- MPC	5027	6		-1.	100300	6	1.00000			CMS02716
3468- CMS02716	100301			6 0.92388	100302		6 0.70711			CMS02726
3469- CMS02726	100303			6 0.38268						
3470- MPC	5027	1		-1.	100300	1	1.00000			CMS02811
3471- CMS02811	100301			1 0.70711	100302		1 0.00000			CMS02821
3472- CMS02821	100303			1 -0.70711						
3473- MPC	5027	2		-1.	100300	2	1.00000			CMS02812
3474- CMS02812	100301			2 0.70711	100302		2 0.00000			CMS02822
3475- CMS02822	100303			2 -0.70711						
3476- MPC	5027	3		-1.	100300	3	.0			CMS02813
3477- CMS02813	100301			3 0.70711	100302		3 1.00000			CMS02823
3478- CMS02823	100303			3 0.70711						
3479- MPC	5027	4		-1.	100300	4	.0			CMS02814
3480- CMS02814	100301			4 0.70711	100302		4 1.00000			CMS02824
3481- CMS02824	100303			4 0.70711						
3482- MPC	5027	5		-1.	100300	5	.0			CMS02815
3483- CMS02815	100301			5 0.70711	100302		5 1.00000			CMS02825
3484- CMS02825	100303			5 0.70711						
3485- MPC	5027	6		-1.	100300	6	1.00000			CMS02816
3486- CMS02816	100301			6 0.70711	100302		6 0.00000			CMS02826
3487- CMS02826	100303			6 -0.70711						
3488- MPC	5027	1		-1.	100300	1	1.00000			CMS02911
3489- CMS02911	100301			1 0.38268	100302		1 -0.70711			CMS02921
3490- CMS02921	100303			1 -0.92388						
3491- MPC	5027	2		-1.	100300	2	1.00000			CMS02912
3492- CMS02912	100301			2 0.38268	100302		2 -0.70711			CMS02922
3493- CMS02922	100303			2 -0.92388						
3494- MPC	5027	3		-1.	100300	3	.0			CMS02913
3495- CMS02913	100301			3 0.92388	100302		3 0.70711			CMS02923
3496- CMS02923	100303			3 -0.38268						
3497- MPC	5027	4		-1.	100300	4	.0			CMS02914
3498- CMS02914	100301			4 0.92388	100302		4 0.70711			CMS02924
3499- CMS02924	100303			4 -0.38268						

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CARD

COUNT	1	2	3	4	5	6	7	8	9	10
3501-	1	5025	5		-1.	100300	5	.0		CMS02915
3502-			100301		5 0.92388	100302		5 0.70711		CMS02925
3503-			100303		5-0.38268					
3504-	1	5025	6		-1.	100300	6	1.00000		CMS02916
3505-			100301		6 0.38268	100302		6-0.70711		CMS02926
3506-			100303		6-0.92388					
3507-	1	5030	1		-1.	100300	1	1.00000		CMS03011
3508-			100301		1 0.00000	100302		1-1.00000		CMS03021
3509-			100303		1-0.00000					
3510-	1	5030	2		-1.	100300	2	1.00000		CMS03012
3511-			100301		2 0.00000	100302		2-1.00000		CMS03022
3512-			100303		2-0.00000					
3513-	1	5030	3		-1.	100300	3	.0		CMS03013
3514-			100301		3 1.00000	100302		3 0.00000		CMS03023
3515-			100303		3-1.00000					
3516-	1	5030	4		-1.	100300	4	.0		CMS03014
3517-			100301		4 1.00000	100302		4 0.00000		CMS03024
3518-			100303		4-1.00000					
3519-	1	5030	5		-1.	100300	5	.0		CMS03015
3520-			100301		5 1.00000	100302		5 0.00000		CMS03025
3521-			100303		5-1.00000					
3522-	1	5030	6		-1.	100300	6	1.00000		CMS03016
3523-			100301		6 0.00000	100302		6-1.00000		CMS03026
3524-			100303		6-0.00000					
3525-	1	5031	1		-1.	100300	1	1.00000		CMS03111
3526-			100301		1-0.38268	100302		1-0.70711		CMS03121
3527-			100303		1 0.92388					
3528-	1	5031	2		-1.	100300	2	1.00000		CMS03112
3529-			100301		2-0.38268	100302		2-0.70711		CMS03122
3530-			100303		2 0.92388					
3531-	1	5031	3		-1.	100300	3	.0		CMS03113
3532-			100301		3 0.92388	100302		3-0.70711		CMS03123
3533-			100303		3-0.38268					
3534-	1	5031	4		-1.	100300	4	.0		CMS03114
3535-			100301		4 0.92388	100302		4-0.70711		CMS03124
3536-			100303		4-0.38268					
3537-	1	5031	5		-1.	100300	5	.0		CMS03115
3538-			100301		5 0.92388	100302		5-0.70711		CMS03125
3539-			100303		5-0.38268					
3540-	1	5031	6		-1.	100300	6	1.00000		CMS03116
3541-			100301		6-0.38268	100302		6-0.70711		CMS03126
3542-			100303		6 0.92388					
3543-	1	5032	1		-1.	100300	1	1.00000		CMS03211
3544-			100301		1-0.70711	100302		1-0.00000		CMS03221
3545-			100303		1 0.70711					
3546-	1	5032	2		-1.	100300	2	1.00000		CMS03212
3547-			100301		2-0.70711	100302		2-0.00000		CMS03222
3548-			100303		2 0.70711					
3549-	1	5032	3		-1.	100300	3	.0		CMS03213
3550-			100301		3 0.70711	100302		3-1.00000		CMS03223

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CAR	COUNT	1	2	3	4	5	6	7	8	9	10
3551-	EM503223	100303	3	0.70710							
3552-	MP	5032	4	-1.	100300	4	.0				EM503214
3553-	EM503214	100301	4	0.70711	100302		4-1.00000				EM503224
3554-	EM503224	100303		0.70710							
3555-	MP	5032	5	-1.	100300	5	.0				EM503215
3556-	EM503215	100301		0.70711	100302		5-1.00000				EM503225
3557-	EM503225	100303		0.70710							
3558-	MP	5032	6	-1.	100300	6	1.00000				EM503216
3559-	EM503216	100301		0.70711	100302		6-0.00000				EM503226
3560-	EM503226	100303		0.70711							
3561-	MP	5032	1	-1.	100300	1	1.00000				EM503311
3562-	EM503311	100301		0.92389	100302		1 0.70711				EM503321
3563-	EM503321	100303		0.38268							
3564-	MP	5032	2	-1.	100300	2	1.00000				EM503312
3565-	EM503312	100301		0.92388	100302		2 0.70711				EM503322
3566-	EM503322	100303		0.38268							
3567-	MP	5032	3	-1.	100300	3	.0				EM503313
3568-	EM503313	100301		0.38268	100302		3-0.70711				EM503323
3569-	EM503323	100303		0.92388							
3570-	MP	5032	4	-1.	100300	4	.0				EM503314
3571-	EM503314	100301		0.38268	100302		4-0.70711				EM503324
3572-	EM503324	100303		0.92388							
3573-	MP	5032	5	-1.	100300	5	.0				EM503315
3574-	EM503315	100301		0.38268	100302		5-0.70711				EM503325
3575-	EM503325	100303		0.92388							
3576-	MP	5032	6	-1.	100300	6	1.00000				EM503316
3577-	EM503316	100301		0.92388	100302		6 0.70711				EM503326
3578-	EM503326	100303		0.38268							
3579-	MP	5034	1	-1.	100300	1	1.00000				EM503411
3580-	EM503411	100301		1.00000	100302		1 1.00000				EM503421
3581-	EM503421	100303		1.00000							
3582-	MP	5034	2	-1.	100300	2	1.00000				EM503412
3583-	EM503412	100301		1.00000	100302		2 1.00000				EM503422
3584-	EM503422	100303		1.00000							
3585-	MP	5034	3	-1.	100300	3	.0				EM503413
3586-	EM503413	100301		0.00000	100302		3-0.00000				EM503423
3587-	EM503423	100303		0.00000							
3588-	MP	5034	4	-1.	100300	4	.0				EM503414
3589-	EM503414	100301		0.00000	100302		4-0.00000				EM503424
3590-	EM503424	100303		0.00000							
3591-	MP	5034	5	-1.	100300	5	.0				EM503415
3592-	EM503415	100301		0.00000	100302		5-0.00000				EM503425
3593-	EM503425	100303		0.00000							
3594-	MP	5034	6	-1.	100300	6	1.00000				EM503416
3595-	EM503416	100301		1.00000	100302		6 1.00000				EM503426
3596-	EM503426	100303		1.00000							
3597-	MP	5035	1	-1.	100400	1	1.00000				EM503911
3598-	EM503911	100401		1.00000	100402		1 1.00000				EM503921
3599-	EM503921	100403		1.00000							
3600-	MP	5039	2	-1.	100400	2	1.00000				EM503912

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CARD	1	2	3	4	5	6	7	8	9	10
3601-	CM503912	1	100401	2	1.00000	100402	2	1.00000	9	CM503922
3602-	CM503922	1	100403	2	1.00000	100402	2	1.00000	9	CM503922
3603-	MPG	1	5039	3	-1.	100400	3	.0	9	CM503913
3604-	CM503913	1	100401	3	0.0	100402	3	0.0	9	CM503923
3605-	CM503923	1	100403	3	0.0	100402	3	0.0	9	CM503923
3606-	MPG	1	5039	4	-1.	100400	4	.0	9	CM503914
3607-	CM503914	1	100401	4	0.0	100402	4	0.0	9	CM503924
3608-	CM503924	1	100403	4	0.0	100402	4	0.0	9	CM503924
3609-	MPG	1	5039	5	-1.	100400	5	.0	9	CM503915
3610-	CM503915	1	100401	5	0.0	100402	5	0.0	9	CM503925
3611-	CM503925	1	100403	5	0.0	100402	5	0.0	9	CM503925
3612-	MPG	1	5039	6	-1.	100400	6	1.00000	9	CM503916
3613-	CM503916	1	100401	6	1.00000	100402	6	1.00000	9	CM503926
3614-	CM503926	1	100403	6	1.00000	100402	6	1.00000	9	CM503926
3615-	MPG	1	5040	1	-1.	100400	1	1.00000	9	CM504011
3616-	CM504011	1	100401	1	0.92388	100402	1	0.70711	9	CM504021
3617-	CM504021	1	100403	1	0.38268	100402	1	0.70711	9	CM504021
3618-	MPG	1	5040	2	-1.	100400	2	1.00000	9	CM504012
3619-	CM504012	1	100401	2	0.92388	100402	2	0.70711	9	CM504022
3620-	CM504022	1	100403	2	0.38268	100402	2	0.70711	9	CM504022
3621-	MPG	1	5040	3	-1.	100400	3	.0	9	CM504013
3622-	CM504013	1	100401	3	0.38268	100402	3	0.70711	9	CM504023
3623-	CM504023	1	100403	3	0.92388	100402	3	0.70711	9	CM504023
3624-	MPG	1	5040	4	-1.	100400	4	.0	9	CM504014
3625-	CM504014	1	100401	4	0.38268	100402	4	0.70711	9	CM504024
3626-	CM504024	1	100403	4	0.92388	100402	4	0.70711	9	CM504024
3627-	MPG	1	5040	5	-1.	100400	5	.0	9	CM504015
3628-	CM504015	1	100401	5	0.38268	100402	5	0.70711	9	CM504025
3629-	CM504025	1	100403	5	0.92388	100402	5	0.70711	9	CM504025
3630-	MPG	1	5040	6	-1.	100400	6	1.00000	9	CM504016
3631-	CM504016	1	100401	6	0.92388	100402	6	0.70711	9	CM504026
3632-	CM504026	1	100403	6	0.38268	100402	6	0.70711	9	CM504026
3633-	MPG	1	5041	1	-1.	100400	1	1.00000	9	CM504111
3634-	CM504111	1	100401	1	0.70711	100402	1	0.00000	9	CM504121
3635-	CM504121	1	100403	1	0.70711	100402	1	0.00000	9	CM504121
3636-	MPG	1	5041	2	-1.	100400	2	1.00000	9	CM504112
3637-	CM504112	1	100401	2	0.70711	100402	2	0.00000	9	CM504122
3638-	CM504122	1	100403	2	0.70711	100402	2	0.00000	9	CM504122
3639-	MPG	1	5041	3	-1.	100400	3	.0	9	CM504113
3640-	CM504113	1	100401	3	0.70711	100402	3	1.00000	9	CM504123
3641-	CM504123	1	100403	3	0.70711	100402	3	1.00000	9	CM504123
3642-	MPG	1	5041	4	-1.	100400	4	.0	9	CM504114
3643-	CM504114	1	100401	4	0.70711	100402	4	1.00000	9	CM504124
3644-	CM504124	1	100403	4	0.70711	100402	4	1.00000	9	CM504124
3645-	MPG	1	5041	5	-1.	100400	5	.0	9	CM504115
3646-	CM504115	1	100401	5	0.70711	100402	5	1.00000	9	CM504125
3647-	CM504125	1	100403	5	0.70711	100402	5	1.00000	9	CM504125
3648-	MPG	1	5041	6	-1.	100400	6	1.00000	9	CM504116
3649-	CM504116	1	100401	6	0.70711	100402	6	0.00000	9	CM504126
3650-	CM504126	1	100403	6	0.70711	100402	6	0.00000	9	CM504126

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CARD	1	2	3	4	5	6	7	8	9	10
CLUNT	1	5042	1							
3551-	MPC			-1.	100400	1		1.00000		EM504211
3552-	EM504211			1 0.38268	100402			-0.70711		EM504221
3553-	EM504221			1-0.92388						
3554-	MPC	5042	2	-1.	100400	2		1.00000		EM504212
3555-	EM504212			2 0.38268	100402			2-0.70711		EM504222
3556-	EM504222			2-0.92388						
3557-	MPC	5042	3	-1.	100400	3		.0		EM504213
3558-	EM504213			3 0.92388	100402			3 0.70711		EM504223
3559-	EM504223			3-0.38268						
3560-	MPC	5042	4	-1.	100400	4		.0		EM504214
3561-	EM504214			4 0.92388	100402			4 0.70711		EM504224
3562-	EM504224			4-0.38268						
3563-	MPC	5042	5	-1.	100400	5		.0		EM504215
3564-	EM504215			5 0.92388	100402			5 0.70711		EM504225
3565-	EM504225			5-0.38268						
3566-	MPC	5042	6	-1.	100400	6		1.00000		EM504216
3567-	EM504216			6 0.38268	100402			6-0.70711		EM504226
3568-	EM504226			6-0.92388						
3569-	MPC	5042	1	-1.	100400	1		1.00000		EM504311
3570-	EM504311			1 0.00000	100402			1-1.00000		EM504321
3571-	EM504321			1-0.00000						
3572-	MPC	5042	2	-1.	100400	2		1.00000		EM504312
3573-	EM504312			2 0.00000	100402			2-1.00000		EM504322
3574-	EM504322			2-0.00000						
3575-	MPC	5042	3	-1.	100400	3		.0		EM504313
3576-	EM504313			3 1.00000	100402			3 0.00000		EM504323
3577-	EM504323			3-1.00000						
3578-	MPC	5042	4	-1.	100400	4		.0		EM504314
3579-	EM504314			4 1.00000	100402			4 0.00000		EM504324
3580-	EM504324			4-1.00000						
3581-	MPC	5042	5	-1.	100400	5		.0		EM504315
3582-	EM504315			5 1.00000	100402			5 0.00000		EM504325
3583-	EM504325			5-1.00000						
3584-	MPC	5042	6	-1.	100400	6		1.00000		EM504316
3585-	EM504316			6 0.00000	100402			6-1.00000		EM504326
3586-	EM504326			6-0.00000						
3587-	MPC	5044	1	-1.	100400	1		1.00000		EM504411
3588-	EM504411			1-0.38268	100402			1-0.70711		EM504421
3589-	EM504421			1 0.92388						
3590-	MPC	5044	2	-1.	100400	2		1.00000		EM504412
3591-	EM504412			2-0.38268	100402			2-0.70711		EM504422
3592-	EM504422			2 0.92388						
3593-	MPC	5044	3	-1.	100400	3		.0		EM504413
3594-	EM504413			3 0.92388	100402			3-0.70711		EM504423
3595-	EM504423			3-0.38268						
3596-	MPC	5044	4	-1.	100400	4		.0		EM504414
3597-	EM504414			4 0.92388	100402			4-0.70711		EM504424
3598-	EM504424			4-0.38268						
3599-	MPC	5044	5	-1.	100400	5		.0		EM504415
3600-	EM504415			5 0.92388	100402			5-0.70711		EM504425

EXTERNAL HARMONIC JUNCTION

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SORTED BULK DATA ECHO									
CARD	1	2	3	4	5	6	7	8	9
3701- COUNT	1	2	3	4	5	6	7	8	9
3702- MPC	1	5044	100403	5-0.38269	-1.	100400	6	1.00000	EM504416
3703- EM504416	1	5044	100403	6-0.38268	100402	6-0.70711			EM504426
3704- EM504426	1	5044	100403	6 0.92388					
3705- MPC	1	5044	100403	-1.	100400	1	1.00000		EM504511
3706- EM504511	1	5044	100403	1-0.70711	100402	1-0.00000			EM504521
3707- EM504521	1	5044	100403	1 0.70711					
3708- MPC	1	5044	100403	-1.	100400	2	1.00000		EM504512
3709- EM504512	1	5044	100403	2-0.70711	100402	2-0.00000			EM504522
3710- EM504522	1	5044	100403	2 0.70711					
3711- MPC	1	5044	100403	-1.	100400	3	.0		EM504513
3712- EM504513	1	5044	100403	3 0.70711	100402	3-1.00000			EM504523
3713- EM504523	1	5044	100403	3 0.70710					
3714- MPC	1	5044	100403	-1.	100400	4	.0		EM504514
3715- EM504514	1	5044	100403	4 0.70711	100402	4-1.00000			EM504524
3716- EM504524	1	5044	100403	4 0.70710					
3717- MPC	1	5044	100403	-1.	100400	5	.0		EM504515
3718- EM504515	1	5044	100403	5 0.70711	100402	5-1.00000			EM504525
3719- EM504525	1	5044	100403	5 0.70710					
3720- MPC	1	5044	100403	-1.	100400	6	1.00000		EM504516
3721- EM504516	1	5044	100403	6-0.70711	100402	6-0.00000			EM504526
3722- EM504526	1	5044	100403	6 0.70711					
3723- MPC	1	5044	100403	-1.	100400	1	1.00000		EM504611
3724- EM504611	1	5044	100403	1-0.92388	100402	1 0.70711			EM504621
3725- EM504621	1	5044	100403	1-0.38268					
3726- MPC	1	5044	100403	-1.	100400	2	1.00000		EM504612
3727- EM504612	1	5044	100403	2-0.92388	100402	2 0.70711			EM504622
3728- EM504622	1	5044	100403	2-0.38268					
3729- MPC	1	5044	100403	-1.	100400	3	.0		EM504613
3730- EM504613	1	5044	100403	3 0.38268	100402	3-0.70711			EM504623
3731- EM504623	1	5044	100403	3 0.92388					
3732- MPC	1	5044	100403	-1.	100400	4	.0		EM504614
3733- EM504614	1	5044	100403	4 0.38268	100402	4-0.70711			EM504624
3734- EM504624	1	5044	100403	4 0.92388					
3735- MPC	1	5044	100403	-1.	100400	5	.0		EM504615
3736- EM504615	1	5044	100403	5 0.38268	100402	5-0.70711			EM504625
3737- EM504625	1	5044	100403	5 0.92388					
3738- MPC	1	5044	100403	-1.	100400	6	1.00000		EM504616
3739- EM504616	1	5044	100403	6-0.92388	100402	6 0.70711			EM504626
3740- EM504626	1	5044	100403	6-0.38268					
3741- MPC	1	5047	100403	-1.	100400	1	1.00000		EM504711
3742- EM504711	1	5047	100403	1-1.00000	100402	1 1.00000			EM504721
3743- EM504721	1	5047	100403	1-1.00000					
3744- MPC	1	5047	100403	-1.	100400	2	1.00000		EM504712
3745- EM504712	1	5047	100403	2-1.00000	100402	2 1.00000			EM504722
3746- EM504722	1	5047	100403	2-1.00000					
3747- MPC	1	5047	100403	-1.	100400	3	.0		EM504713
3748- EM504713	1	5047	100403	3 0.00000	100402	3-0.00000			EM504723
3749- EM504723	1	5047	100403	3 0.00000					
3750- MPC	1	5047	100403	-1.	100400	4	.0		EM504714

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3751-	CM504714	100401	4	0.00000	100402	4	0.00000	4	0.00000	CM504724
3752-	CM504724	100403	4	0.00000	100402	4	0.00000	4	0.00000	CM504725
3753-	MPG	5047	5	-1.	100400	5	0	0.00000	5	CM504715
3754-	CM504715	100401	5	0.00000	100402	5	0	0.00000	5	CM504725
3755-	CM504725	100403	5	0.00000	100402	5	0	0.00000	5	CM504716
3756-	MPG	5047	6	-1.	100400	6	1.00000	6	1.00000	CM504726
3757-	CM504716	100401	6	-1.00000	100402	6	1.00000	6	1.00000	CM504726
3758-	CM504726	100403	6	-1.00000	100402	6	1.00000	6	1.00000	CM504726
3759-	MPG	5052	1	-1.	100500	1	1.00000	1	1.00000	CM505211
3760-	CM505211	100501	1	1.00000	100502	1	1.00000	1	1.00000	CM505221
3761-	CM505221	100503	1	1.00000	100502	1	1.00000	1	1.00000	CM505221
3762-	MPG	5052	2	-1.	100500	2	1.00000	2	1.00000	CM505212
3763-	CM505212	100501	2	1.00000	100502	2	1.00000	2	1.00000	CM505222
3764-	CM505222	100503	2	1.00000	100502	2	1.00000	2	1.00000	CM505222
3765-	MPG	5052	3	-1.	100500	3	0	0.00000	3	CM505213
3766-	CM505213	100501	3	0.0	100502	3	0.0	3	0.0	CM505223
3767-	CM505223	100503	3	0.0	100502	3	0.0	3	0.0	CM505223
3768-	MPG	5052	4	-1.	100500	4	0	0.00000	4	CM505214
3769-	CM505214	100501	4	0.0	100502	4	0.0	4	0.0	CM505224
3770-	CM505224	100503	4	0.0	100502	4	0.0	4	0.0	CM505224
3771-	MPG	5052	5	-1.	100500	5	0	0.00000	5	CM505215
3772-	CM505215	100501	5	0.0	100502	5	0.0	5	0.0	CM505225
3773-	CM505225	100503	5	0.0	100502	5	0.0	5	0.0	CM505225
3774-	MPG	5052	6	-1.	100500	6	1.00000	6	1.00000	CM505216
3775-	CM505216	100501	6	1.00000	100502	6	1.00000	6	1.00000	CM505226
3776-	CM505226	100503	6	1.00000	100502	6	1.00000	6	1.00000	CM505226
3777-	MPG	5053	1	-1.	100500	1	1.00000	1	1.00000	CM505311
3778-	CM505311	100501	1	0.92388	100502	1	0.70711	1	0.70711	CM505321
3779-	CM505321	100503	1	0.38268	100502	1	0.38268	1	0.38268	CM505321
3780-	MPG	5053	2	-1.	100500	2	1.00000	2	1.00000	CM505312
3781-	CM505312	100501	2	0.92388	100502	2	0.70711	2	0.70711	CM505322
3782-	CM505322	100503	2	0.38268	100502	2	0.38268	2	0.38268	CM505322
3783-	MPG	5053	3	-1.	100500	3	0	0.00000	3	CM505313
3784-	CM505313	100501	3	0.38268	100502	3	0.70711	3	0.70711	CM505323
3785-	CM505323	100503	3	0.92388	100502	3	0.92388	3	0.92388	CM505323
3786-	MPG	5053	4	-1.	100500	4	0	0.00000	4	CM505314
3787-	CM505314	100501	4	0.38268	100502	4	0.70711	4	0.70711	CM505324
3788-	CM505324	100503	4	0.92388	100502	4	0.92388	4	0.92388	CM505324
3789-	MPG	5053	5	-1.	100500	5	0	0.00000	5	CM505315
3790-	CM505315	100501	5	0.38268	100502	5	0.70711	5	0.70711	CM505325
3791-	CM505325	100503	5	0.92388	100502	5	0.92388	5	0.92388	CM505325
3792-	MPG	5053	6	-1.	100500	6	1.00000	6	1.00000	CM505316
3793-	CM505316	100501	6	0.92388	100502	6	0.70711	6	0.70711	CM505326
3794-	CM505326	100503	6	0.38268	100502	6	0.38268	6	0.38268	CM505326
3795-	MPG	5054	1	-1.	100500	1	1.00000	1	1.00000	CM505411
3796-	CM505411	100501	1	0.70711	100502	1	0.00000	1	0.00000	CM505421
3797-	CM505421	100503	1	0.70711	100502	1	0.70711	1	0.70711	CM505421
3798-	MPG	5054	2	-1.	100500	2	1.00000	2	1.00000	CM505412
3799-	CM505412	100501	2	0.70711	100502	2	0.00000	2	0.00000	CM505422
3800-	CM505422	100503	2	0.70711	100502	2	0.70711	2	0.70711	CM505422

EXTERNAL TANK 1. FLUID
HARMONIC REDUCTION

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3901-	MP	1	5054	3	-1.	100500	3	.0		EM505413
3902-	EM505413		100501		3	0.70711	100502	3	1.00000	EM505423
3903-	EM505423		100503		3	0.70711				
3904-	MP	1	5054	4	-1.	100500	4	.0		EM505414
3905-	EM505414		100501		4	0.70711	100502	4	1.00000	EM505424
3906-	EM505424		100503		4	0.70711				
3907-	MP	1	5054	5	-1.	100500	5	.0		EM505415
3908-	EM505415		100501		5	0.70711	100502	5	1.00000	EM505425
3909-	EM505425		100503		5	0.70711				
3910-	MP	1	5054	6	-1.	100500	6	1.00000		EM505416
3911-	EM505416		100501		6	0.70711	100502	6	0.00000	EM505426
3912-	EM505426		100503		6	0.70711				
3913-	MP	1	5055	1	-1.	100500	1	1.00000		EM505511
3914-	EM505511		100501		1	0.39268	100502	1	-0.70711	EM505521
3915-	EM505521		100503		1	-0.92388				
3916-	MP	1	5055	2	-1.	100500	2	1.00000		EM505512
3917-	EM505512		100501		2	0.39268	100502	2	-0.70711	EM505522
3918-	EM505522		100503		2	-0.92388				
3919-	MP	1	5055	3	-1.	100500	3	.0		EM505513
3920-	EM505513		100501		3	0.92388	100502	3	0.70711	EM505523
3921-	EM505523		100503		3	-0.39268				
3922-	MP	1	5055	4	-1.	100500	4	.0		EM505514
3923-	EM505514		100501		4	0.92388	100502	4	0.70711	EM505524
3924-	EM505524		100503		4	-0.39268				
3925-	MP	1	5055	5	-1.	100500	5	.0		EM505515
3926-	EM505515		100501		5	0.92388	100502	5	0.70711	EM505525
3927-	EM505525		100503		5	-0.39268				
3928-	MP	1	5055	6	-1.	100500	6	1.00000		EM505516
3929-	EM505516		100501		6	0.39268	100502	6	-0.70711	EM505526
3930-	EM505526		100503		6	-0.92388				
3931-	MP	1	5056	1	-1.	100500	1	1.00000		EM505611
3932-	EM505611		100501		1	0.00000	100502	1	-1.00000	EM505621
3933-	EM505621		100503		1	-0.00000				
3934-	MP	1	5056	2	-1.	100500	2	1.00000		EM505612
3935-	EM505612		100501		2	0.00000	100502	2	-1.00000	EM505622
3936-	EM505622		100503		2	-0.00000				
3937-	MP	1	5056	3	-1.	100500	3	.0		EM505613
3938-	EM505613		100501		3	1.00000	100502	3	0.00000	EM505623
3939-	EM505623		100503		3	-1.00000				
3940-	MP	1	5056	4	-1.	100500	4	.0		EM505614
3941-	EM505614		100501		4	1.00000	100502	4	0.00000	EM505624
3942-	EM505624		100503		4	-1.00000				
3943-	MP	1	5056	5	-1.	100500	5	.0		EM505615
3944-	EM505615		100501		5	1.00000	100502	5	0.00000	EM505625
3945-	EM505625		100503		5	-1.00000				
3946-	MP	1	5056	6	-1.	100500	6	1.00000		EM505616
3947-	EM505616		100501		6	0.00000	100502	6	-1.00000	EM505626
3948-	EM505626		100503		6	-0.00000				
3949-	MP	1	5057	1	-1.	100500	1	1.00000		EM505711
3950-	EM505711		100501		1	-0.39268	100502	1	-0.70711	EM505721

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
3841- CM505721 MPC	1	100503	2	1	0.92388					
3842- CM505712 MPC	1	5057	2	-1.	100500	2	1.00000			CM505712
3843- CM505722 MPC	1	100503	2	2-0.38268	100502		2-0.70711			CM505722
3844- CM505713 MPC	1	5057	3	-1.	100500	3	.0			CM505713
3845- CM505723 MPC	1	100503	3	3-0.92388	100502		3-0.70711			CM505723
3846- CM505714 MPC	1	5057	4	-1.	100500	4	.0			CM505714
3847- CM505724 MPC	1	100503	4	4-0.92388	100502		4-0.70711			CM505724
3848- CM505715 MPC	1	5057	5	-1.	100500	5	.0			CM505715
3849- CM505725 MPC	1	100503	5	5-0.92388	100502		5-0.70711			CM505725
3850- CM505716 MPC	1	5057	6	-1.	100500	6	1.00000			CM505716
3851- CM505726 MPC	1	100503	6	6-0.38268	100502		6-0.70711			CM505726
3852- CM505811 MPC	1	5058	1	-1.	100500	1	1.00000			CM505811
3853- CM505821 MPC	1	100503	1	1-0.70711	100502		1-0.00000			CM505821
3854- CM505812 MPC	1	5058	2	-1.	100500	2	1.00000			CM505812
3855- CM505822 MPC	1	100503	2	2-0.70711	100502		2-0.00000			CM505822
3856- CM505813 MPC	1	5058	3	-1.	100500	3	.0			CM505813
3857- CM505823 MPC	1	100503	3	3-0.70711	100502		3-1.00000			CM505823
3858- CM505814 MPC	1	5058	4	-1.	100500	4	.0			CM505814
3859- CM505824 MPC	1	100503	4	4-0.70711	100502		4-1.00000			CM505824
3860- CM505815 MPC	1	5058	5	-1.	100500	5	.0			CM505815
3861- CM505825 MPC	1	100503	5	5-0.70711	100502		5-1.00000			CM505825
3862- CM505816 MPC	1	5058	6	-1.	100500	6	1.00000			CM505816
3863- CM505826 MPC	1	100503	6	6-0.70711	100502		6-0.00000			CM505826
3864- CM505911 MPC	1	5059	1	-1.	100500	1	1.00000			CM505911
3865- CM505921 MPC	1	100503	1	1-0.92388	100502		1-0.70711			CM505921
3866- CM505912 MPC	1	5059	2	-1.	100500	2	1.00000			CM505912
3867- CM505922 MPC	1	100503	2	2-0.92388	100502		2-0.70711			CM505922
3868- CM505913 MPC	1	5059	3	-1.	100500	3	.0			CM505913
3869- CM505923 MPC	1	100503	3	3-0.38268	100502		3-0.70711			CM505923
3870- CM505914 MPC	1	5059	4	-1.	100500	4	.0			CM505914
3871- CM505924 MPC	1	100503	4	4-0.38268	100502		4-0.70711			CM505924
3872- CM505915 MPC	1	5059	5	-1.	100500	5	.0			CM505915
3873- CM505925 MPC	1	100503	5	5-0.38268	100502		5-0.70711			CM505925
3874- CM505916 MPC	1	5059	6	-1.	100500	6	1.00000			CM505916

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

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Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
3901-	CM505916	100501	6-0.92388	100502	6-0.70711	9	..	10	..	CM505926
3902-	CM505926	100503	6-0.38268							
3903-	MPC	5060	1	100500	1	1.00000				CM506011
3904-	CM506011	100501	1-1.00000	100502	1	1.00000				CM506021
3905-	CM506021	100503	1-1.00000							
3906-	MPC	5060	2	100500	2	1.00000				CM506012
3907-	CM506012	100501	2-1.00000	100502	2	1.00000				CM506022
3908-	CM506022	100503	2-1.00000							
3909-	MPC	5060	3	100500	3	.0				CM506013
3910-	CM506013	100501	3-0.00000	100502	3-0.00000					CM506023
3911-	CM506023	100503	3-0.00000							
3912-	MPC	5060	4	100500	4	.0				CM506014
3913-	CM506014	100501	4-0.00000	100502	4-0.00000					CM506024
3914-	CM506024	100503	4-0.00000							
3915-	MPC	5060	5	100500	5	.0				CM506015
3916-	CM506015	100501	5-0.00000	100502	5-0.00000					CM506025
3917-	CM506025	100503	5-0.00000							
3918-	MPC	5060	6	100500	6	1.00000				CM506016
3919-	CM506016	100501	6-1.00000	100502	6-1.00000					CM506026
3920-	CM506026	100503	6-1.00000							
3921-	MPC	5065	1	100600	1	1.00000				CM506511
3922-	CM506511	100601	1-1.00000	100602	1-1.00000					CM506521
3923-	CM506521	100603	1-1.00000							
3924-	MPC	5065	2	100600	2	1.00000				CM506512
3925-	CM506512	100601	2-1.00000	100602	2-1.00000					CM506522
3926-	CM506522	100603	2-1.00000							
3927-	MPC	5065	3	100600	3	.0				CM506513
3928-	CM506513	100601	3-0.0	100602	3-0.0					CM506523
3929-	CM506523	100603	3-0.0							
3930-	MPC	5065	4	100600	4	.0				CM506514
3931-	CM506514	100601	4-0.0	100602	4-0.0					CM506524
3932-	CM506524	100603	4-0.0							
3933-	MPC	5065	5	100600	5	.0				CM506515
3934-	CM506515	100601	5-0.0	100602	5-0.0					CM506525
3935-	CM506525	100603	5-0.0							
3936-	MPC	5065	6	100600	6	1.00000				CM506516
3937-	CM506516	100601	6-1.00000	100602	6-1.00000					CM506526
3938-	CM506526	100603	6-1.00000							
3939-	MPC	5065	1	100600	1	1.00000				CM506611
3940-	CM506611	100601	1-0.92388	100602	1-0.70711					CM506621
3941-	CM506621	100603	1-0.38268							
3942-	MPC	5065	2	100600	2	1.00000				CM506612
3943-	CM506612	100601	2-0.92388	100602	2-0.70711					CM506622
3944-	CM506622	100603	2-0.38268							
3945-	MPC	5065	3	100600	3	.0				CM506613
3946-	CM506613	100601	3-0.38268	100602	3-0.70711					CM506623
3947-	CM506623	100603	3-0.92388							
3948-	MPC	5065	4	100600	4	.0				CM506614
3949-	CM506614	100601	4-0.38268	100602	4-0.70711					CM506624
3950-	CM506624	100603	4-0.92388							

Volume II

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3951-	MPG	5066	5	-1.	100600	5	.0			EM506615
3952-	EM506615	100601	5	5 0.38268	100602		5 0.70711			EM506625
3953-	EM506625	100603		5 0.92388						
3954-	MPG	5066	6	-1.	100600	6	1.00000			EM506616
3955-	EM506616	100601		6 0.92388	100602		6 0.70711			EM506626
3956-	EM506626	100603		6 0.38268						
3957-	MPG	5067	1	-1.	100600	1	1.00000			EM506711
3958-	EM506711	100601		1 0.70711	100602		1 0.00000			EM506721
3959-	EM506721	100603		1 0.70711						
3960-	MPG	5067	2	-1.	100600	2	1.00000			EM506712
3961-	EM506712	100601		2 0.70711	100602		2 0.00000			EM506722
3962-	EM506722	100603		2 0.70711						
3963-	MPG	5067	3	-1.	100600	3	.0			EM506713
3964-	EM506713	100601		3 0.70711	100602		3 1.00000			EM506723
3965-	EM506723	100603		3 0.70711						
3966-	MPG	5067	4	-1.	100600	4	.0			EM506714
3967-	EM506714	100601		4 0.70711	100602		4 1.00000			EM506724
3968-	EM506724	100603		4 0.70711						
3969-	MPG	5067	5	-1.	100600	5	.0			EM506715
3970-	EM506715	100601		5 0.70711	100602		5 1.00000			EM506725
3971-	EM506725	100603		5 0.70711						
3972-	MPG	5067	6	-1.	100600	6	1.00000			EM506716
3973-	EM506716	100601		6 0.70711	100602		6 0.00000			EM506726
3974-	EM506726	100603		6 0.70711						
3975-	MPG	5068	1	-1.	100600	1	1.00000			EM506811
3976-	EM506811	100601		1 0.38268	100602		1 0.70711			EM506821
3977-	EM506821	100603		1 0.92388						
3978-	MPG	5068	2	-1.	100600	2	1.00000			EM506812
3979-	EM506812	100601		2 0.38268	100602		2 0.70711			EM506822
3980-	EM506822	100603		2 0.92388						
3981-	MPG	5068	3	-1.	100600	3	.0			EM506813
3982-	EM506813	100601		3 0.92388	100602		3 0.70711			EM506823
3983-	EM506823	100603		3 0.38268						
3984-	MPG	5068	4	-1.	100600	4	.0			EM506814
3985-	EM506814	100601		4 0.92388	100602		4 0.70711			EM506824
3986-	EM506824	100603		4 0.38268						
3987-	MPG	5068	5	-1.	100600	5	.0			EM506815
3988-	EM506815	100601		5 0.92388	100602		5 0.70711			EM506825
3989-	EM506825	100603		5 0.38268						
3990-	MPG	5068	6	-1.	100600	6	1.00000			EM506816
3991-	EM506816	100601		6 0.38268	100602		6 0.70711			EM506826
3992-	EM506826	100603		6 0.92388						
3993-	MPG	5069	1	-1.	100600	1	1.00000			EM506911
3994-	EM506911	100601		1 0.00000	100602		1 1.00000			EM506921
3995-	EM506921	100603		1 0.00000						
3996-	MPG	5069	2	-1.	100600	2	1.00000			EM506912
3997-	EM506912	100601		2 0.00000	100602		2 1.00000			EM506922
3998-	EM506922	100603		2 0.00000						
3999-	MPG	5069	3	-1.	100600	3	.0			EM506913
4000-	EM506913	100601		3 1.00000	100602		3 0.00000			EM506923

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

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Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CM507212	100601	2	100601	4	2-0.92388	100602	7	2 0.70711	8	10
CM507222	100603		100603		2-0.38268					CM507222
CM507213	5072 3		5072 3		-1.	100600 3		0		CM507213
CM507223	100601		100601		3 0.38269	100602		3-0.70711		CM507223
CM507214	100603		100603		3 0.92389					CM507214
CM507224	5072 4		5072 4		-1.	100600 4		0		CM507224
CM507215	100601		100601		4 0.38268	100602		4-0.70711		CM507215
CM507225	100603		100603		4 0.92389					CM507225
CM507216	5072 5		5072 5		-1.	100600 5		0		CM507216
CM507226	100601		100601		5 0.38269	100602		5-0.70711		CM507226
CM507311	100603		100603		5 0.92389					CM507311
CM507321	5072 6		5072 6		-1.	100600 6		1.00000		CM507321
CM507312	100601		100601		6-0.92389	100602		6 0.70711		CM507312
CM507322	100603		100603		6-0.38268					CM507322
CM507313	5072 1		5072 1		-1.	100600 1		1.00000		CM507313
CM507323	100601		100601		1-1.00000	100602		1 1.00000		CM507323
CM507314	100603		100603		1-1.00000					CM507314
CM507324	5072 2		5072 2		-1.	100600 2		1.00000		CM507324
CM507315	100601		100601		2-1.00000	100602		2 1.00000		CM507315
CM507325	100603		100603		2-1.00000					CM507325
CM507316	5072 3		5072 3		-1.	100600 3		0		CM507316
CM507326	100601		100601		3 0.00000	100602		3-0.00000		CM507326
CM507317	100603		100603		3 0.00000					CM507317
CM507327	5072 4		5072 4		-1.	100600 4		0		CM507327
CM507318	100601		100601		4 0.00000	100602		4-0.00000		CM507318
CM507328	100603		100603		4 0.00000					CM507328
CM507319	5072 5		5072 5		-1.	100600 5		0		CM507319
CM507329	100601		100601		5 0.00000	100602		5-0.00000		CM507329
CM507320	100603		100603		5 0.00000					CM507320
CM507330	5072 6		5072 6		-1.	100600 6		1.00000		CM507330
CM507331	100601		100601		6-1.00000	100602		6 1.00000		CM507331
CM507332	100603		100603		6-1.00000					CM507332
CM507811	5072 1		5072 1		-1.	100700 1		1.00000		CM507811
CM507821	100701		100701		1 1.00000	100702		1 1.00000		CM507821
CM507812	100703		100703		1 1.00000					CM507812
CM507822	5072 2		5072 2		-1.	100700 2		0		CM507822
CM507813	100701		100701		2 0.0	100702		2 0.0		CM507813
CM507823	100703		100703		2 0.0					CM507823
CM507814	5072 3		5072 3		-1.	100700 3		1.00000		CM507814
CM507824	100701		100701		3 1.00000	100702		3 1.00000		CM507824
CM507815	100703		100703		3 1.00000					CM507815
CM507825	5072 4		5072 4		-1.	100700 4		0		CM507825
CM507816	100701		100701		4 0.0	100702		4 0.0		CM507816
CM507826	100703		100703		4 0.0					CM507826
CM507817	5072 5		5072 5		-1.	100700 5		1.00000		CM507817
CM507827	100701		100701		5 1.00000	100702		5 1.00000		CM507827
CM507828	100703		100703		5 1.00000					CM507828
CM507818	5072 6		5072 6		-1.	100700 6		0		CM507818
CM507829	100701		100701		6 0.0	100702		6 0.0		CM507829
CM507830	100703		100703		6 0.0					CM507830

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Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
GROUP	1	2	3	4	5	6	7	8	9	10
4101-	MPG	5079	1	100701	1	100700	1	1.00000	2M507911	2M507911
4102-	EM507911	100701	1	1 0.92388	100702	1	0.70711	2M507921	2M507921	2M507921
4103-	EM507921	100703	1	1 0.38268	100700	2	0.0	2M507912	2M507912	2M507912
4104-	MPG	5079	2	2 0.38268	100702	2	0.70711	2M507922	2M507922	2M507922
4105-	EM507912	100701	1	2 0.92388	100700	3	1.00000	2M507913	2M507913	2M507913
4106-	EM507922	100703	1	3 0.92388	100702	3	0.70711	2M507923	2M507923	2M507923
4107-	MPG	5079	3	3 0.38268	100700	4	0.0	2M507914	2M507914	2M507914
4108-	EM507913	100701	1	4 0.38268	100702	4	0.70711	2M507924	2M507924	2M507924
4109-	EM507923	100703	1	4 0.92388	100700	5	1.00000	2M507915	2M507915	2M507915
4110-	MPG	5079	4	5 0.92388	100702	5	0.70711	2M507925	2M507925	2M507925
4111-	EM507914	100701	1	5 0.38268	100700	6	0.0	2M507916	2M507916	2M507916
4112-	EM507924	100703	1	6 0.38268	100702	6	0.70711	2M507926	2M507926	2M507926
4113-	MPG	5079	5	6 0.92388	100700	1	1.00000	2M508011	2M508011	2M508011
4114-	EM507915	100701	1	1 0.70711	100702	1	0.00000	2M508021	2M508021	2M508021
4115-	EM507925	100703	1	1 0.70711	100700	2	0.0	2M508012	2M508012	2M508012
4116-	MPG	5079	6	2 0.70711	100702	2	1.00000	2M508022	2M508022	2M508022
4117-	EM507916	100701	1	2 0.70711	100700	3	1.00000	2M508013	2M508013	2M508013
4118-	EM507926	100703	1	3 0.70711	100702	3	0.00000	2M508023	2M508023	2M508023
4119-	MPG	5080	1	3 0.70711	100700	4	0.0	2M508014	2M508014	2M508014
4120-	EM508011	100701	1	4 0.70711	100702	4	1.00000	2M508024	2M508024	2M508024
4121-	EM508021	100703	1	4 0.70711	100700	5	1.00000	2M508015	2M508015	2M508015
4122-	MPG	5080	2	5 0.70711	100702	5	0.00000	2M508025	2M508025	2M508025
4123-	EM508012	100701	1	5 0.70711	100700	6	0.0	2M508016	2M508016	2M508016
4124-	EM508022	100703	1	6 0.70711	100702	6	1.00000	2M508026	2M508026	2M508026
4125-	MPG	5080	3	6 0.70711	100700	1	1.00000	2M508011	2M508011	2M508011
4126-	EM508013	100701	1	1 0.70711	100702	1	0.00000	2M508021	2M508021	2M508021
4127-	EM508023	100703	1	1 0.70711	100700	2	0.0	2M508012	2M508012	2M508012
4128-	MPG	5080	4	2 0.70711	100702	2	1.00000	2M508022	2M508022	2M508022
4129-	EM508014	100701	1	2 0.70711	100700	3	1.00000	2M508013	2M508013	2M508013
4130-	EM508024	100703	1	3 0.70711	100702	3	0.00000	2M508023	2M508023	2M508023
4131-	MPG	5080	5	3 0.70711	100700	4	0.0	2M508014	2M508014	2M508014
4132-	EM508015	100701	1	4 0.70711	100702	4	1.00000	2M508024	2M508024	2M508024
4133-	EM508025	100703	1	4 0.70711	100700	5	1.00000	2M508015	2M508015	2M508015
4134-	MPG	5080	6	5 0.70711	100702	5	0.00000	2M508025	2M508025	2M508025
4135-	EM508016	100701	1	5 0.70711	100700	6	0.0	2M508016	2M508016	2M508016
4136-	EM508026	100703	1	6 0.70711	100702	6	1.00000	2M508026	2M508026	2M508026
4137-	MPG	5081	1	6 0.70711	100700	1	1.00000	2M508011	2M508011	2M508011
4138-	EM508011	100701	1	1 0.38268	100702	1	0.00000	2M508021	2M508021	2M508021
4139-	EM508021	100703	1	1 0.92388	100700	2	0.0	2M508012	2M508012	2M508012
4140-	MPG	5081	2	2 0.92388	100702	2	0.70711	2M508012	2M508012	2M508012
4141-	EM508012	100701	1	2 0.38268	100700	3	1.00000	2M508013	2M508013	2M508013
4142-	EM508022	100703	1	3 0.38268	100702	3	0.70711	2M508012	2M508012	2M508012
4143-	MPG	5081	3	3 0.92388	100700	4	0.0	2M508014	2M508014	2M508014
4144-	EM508013	100701	1	4 0.38268	100702	4	0.70711	2M508015	2M508015	2M508015
4145-	EM508023	100703	1	4 0.92388	100700	5	1.00000	2M508025	2M508025	2M508025
4146-	MPG	5081	4	5 0.92388	100702	5	0.00000	2M508016	2M508016	2M508016
4147-	EM508014	100701	1	4 0.92388	100700	6	0.0	2M508017	2M508017	2M508017
4148-	EM508024	100703	1	4 0.38268	100702	6	1.00000	2M508026	2M508026	2M508026
4149-	MPG	5081	5	5 0.38268	100700	1	1.00000	2M508011	2M508011	2M508011
4150-	EM508015	100701	1	5 0.92388	100702	1	0.00000	2M508021	2M508021	2M508021

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

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Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4151-	CMSC8125	1	100703	5-0.92389						
4152-	MPC	5081	6		100700	6	.0			CMSC8116
4153-	CMSC8116		100701	6 0.92388	100702		6 0.70711			CMSC8126
4154-	CMSC8126		100703	6-0.38268						
4155-	MPC	5082	1	-1.	100700	1	1.00000			CMSC8211
4156-	CMSC8211		100701	1 0.00000	100702		1-1.00000			CMSC8221
4157-	CMSC8221		100703	1-0.00000						
4158-	MPC	5082	2	-1.	100700	2	.0			CMSC8212
4159-	CMSC8212		100701	2 1.00000	100702		2 0.00000			CMSC8222
4160-	CMSC8222		100703	2-1.00000						
4161-	MPC	5082	3	-1.	100700	3	1.00000			CMSC8213
4162-	CMSC8213		100701	3 0.00000	100702		3-1.00000			CMSC8223
4163-	CMSC8223		100703	3-0.00000						
4164-	MPC	5082	4	-1.	100700	4	.0			CMSC8214
4165-	CMSC8214		100701	4 1.00000	100702		4 0.00000			CMSC8224
4166-	CMSC8224		100703	4-1.00000						
4167-	MPC	5082	5	-1.	100700	5	1.00000			CMSC8215
4168-	CMSC8215		100701	5 0.00000	100702		5-1.00000			CMSC8225
4169-	CMSC8225		100703	5-0.00000						
4170-	MPC	5082	6	-1.	100700	6	.0			CMSC8216
4171-	CMSC8216		100701	6 1.00000	100702		6 0.00000			CMSC8226
4172-	CMSC8226		100703	6-1.00000						
4173-	MPC	5083	1	-1.	100700	1	1.00000			CMSC8311
4174-	CMSC8311		100701	1-0.38268	100702		1-0.70711			CMSC8321
4175-	CMSC8321		100703	1 0.92388						
4176-	MPC	5083	2	-1.	100700	2	.0			CMSC8312
4177-	CMSC8312		100701	2 0.92388	100702		2-0.70711			CMSC8322
4178-	CMSC8322		100703	2-0.38269						
4179-	MPC	5083	3	-1.	100700	3	1.00000			CMSC8313
4180-	CMSC8313		100701	3-0.38268	100702		3-0.70711			CMSC8323
4181-	CMSC8323		100703	3 0.92388						
4182-	MPC	5083	4	-1.	100700	4	.0			CMSC8314
4183-	CMSC8314		100701	4 0.92388	100702		4-0.70711			CMSC8324
4184-	CMSC8324		100703	4-0.38269						
4185-	MPC	5083	5	-1.	100700	5	1.00000			CMSC8315
4186-	CMSC8315		100701	5-0.38268	100702		5-0.70711			CMSC8325
4187-	CMSC8325		100703	5 0.92388						
4188-	MPC	5083	6	-1.	100700	6	.0			CMSC8316
4189-	CMSC8316		100701	6 0.92388	100702		6-0.70711			CMSC8326
4190-	CMSC8326		100703	6-0.38269						
4191-	MPC	5084	1	-1.	100700	1	1.00000			CMSC8411
4192-	CMSC8411		100701	1-0.70711	100702		1-0.00000			CMSC8421
4193-	CMSC8421		100703	1 0.70711						
4194-	MPC	5084	2	-1.	100700	2	.0			CMSC8412
4195-	CMSC8412		100701	2 0.70711	100702		2-1.00000			CMSC8422
4196-	CMSC8422		100703	2 0.70710						
4197-	MPC	5084	3	-1.	100700	3	1.00000			CMSC8413
4198-	CMSC8413		100701	3-0.70711	100702		3-0.00000			CMSC8423
4199-	CMSC8423		100703	3 0.70711						
4200-	MPC	5084	4	-1.	100700	4	.0			CMSC8414

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
4201-	CM5C8414		100701	4	0.70711	100702				CM508424
4202-	CM5C8424		100703	4	0.70710					
4203-	MPC	5084	5	-1.	100700	5		1.00000		CM508415
4204-	CM5C8415		100701	5	0.70711	100702		5.0.00000		CM508425
4205-	CM5C8425		100703	5	0.70711					
4206-	MPC	5084	6	-1.	100700	6		.0		CM508416
4207-	CM5C8416		100701	6	0.70711	100702		6.1.00000		CM508426
4208-	CM5C8426		100703	6	0.70710					
4209-	MPC	5085	1	-1.	100700	1		1.00000		CM508511
4210-	CM5C8511		100701	1	0.92388	100702		1 0.70711		CM508521
4211-	CM5C8521		100703	1	0.38268					
4212-	MPC	5085	2	-1.	100700	2		.0		CM508512
4213-	CM5C8512		100701	2	0.38268	100702		2.0.70711		CM508522
4214-	CM5C8522		100703	2	0.92388					
4215-	MPC	5085	3	-1.	100700	3		1.00000		CM508513
4216-	CM5C8513		100701	3	0.92388	100702		3 0.70711		CM508523
4217-	CM5C8523		100703	3	0.38268					
4218-	MPC	5085	4	-1.	100700	4		.0		CM508514
4219-	CM5C8514		100701	4	0.38268	100702		4.0.70711		CM508524
4220-	CM5C8524		100703	4	0.92388					
4221-	MPC	5085	5	-1.	100700	5		1.00000		CM508515
4222-	CM5C8515		100701	5	0.92388	100702		5 0.70711		CM508525
4223-	CM5C8525		100703	5	0.38268					
4224-	MPC	5085	6	-1.	100700	6		.0		CM508516
4225-	CM5C8516		100701	6	0.38268	100702		6.0.70711		CM508526
4226-	CM5C8526		100703	6	0.92388					
4227-	MPC	5086	1	-1.	100700	1		1.00000		CM508611
4228-	CM5C8611		100701	1	1.00000	100702		1 1.00000		CM508621
4229-	CM5C8621		100703	1	1.00000					
4230-	MPC	5086	2	-1.	100700	2		.0		CM508612
4231-	CM5C8612		100701	2	0.00000	100702		2.0.00000		CM508622
4232-	CM5C8622		100703	2	0.00000					
4233-	MPC	5086	3	-1.	100700	3		1.00000		CM508613
4234-	CM5C8613		100701	3	1.00000	100702		3 1.00000		CM508623
4235-	CM5C8623		100703	3	1.00000					
4236-	MPC	5086	4	-1.	100700	4		.0		CM508614
4237-	CM5C8614		100701	4	0.00000	100702		4.0.00000		CM508624
4238-	CM5C8624		100703	4	0.00000					
4239-	MPC	5086	5	-1.	100700	5		1.00000		CM508615
4240-	CM5C8615		100701	5	1.00000	100702		5 1.00000		CM508625
4241-	CM5C8625		100703	5	1.00000					
4242-	MPC	5086	6	-1.	100700	6		.0		CM508616
4243-	CM5C8616		100701	6	0.00000	100702		6.0.00000		CM508626
4244-	CM5C8626		100703	6	0.00000					
4245-	MPC	5091	1	-1.	100800	1		1.00000		CM509111
4246-	CM5C9111		100801	1	1.00000	100802		1 1.00000		CM509121
4247-	CM5C9121		100803	1	1.00000					
4248-	MPC	5091	2	-1.	100800	2		.0		CM509112
4249-	CM5C9112		100801	2	0.0	100802		2 0.0		CM509122
4250-	CM5C9122		100803	2	0.0					

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
4251-	MP	5091	3	-1.	100800	3	1.00000	3	1.00000	4509113
4252-	EMSC9113	100801	3	1.00000	100802	3	1.00000	3	1.00000	4509123
4253-	EMSC9123	100803	3	1.00000	100802	3	1.00000	3	1.00000	4509123
4254-	MP	5091	4	-1.	100800	4	.0	4	.0	4509114
4255-	EMSC9114	100801	4	0.0	100802	4	0.0	4	0.0	4509124
4256-	EMSC9124	100803	4	0.0	100802	4	0.0	4	0.0	4509124
4257-	MP	5091	5	-1.	100800	5	1.00000	5	1.00000	4509115
4258-	EMSC9115	100801	5	1.00000	100802	5	1.00000	5	1.00000	4509125
4259-	EMSC9125	100803	5	1.00000	100802	5	1.00000	5	1.00000	4509125
4260-	MP	5091	6	-1.	100800	6	.0	6	.0	4509116
4261-	EMSC9116	100801	6	0.0	100802	6	0.0	6	0.0	4509126
4262-	EMSC9126	100803	6	0.0	100802	6	0.0	6	0.0	4509126
4263-	MP	5092	1	-1.	100800	1	1.00000	1	1.00000	4509211
4264-	EMSC9211	100801	1	0.92388	100802	1	0.70711	1	0.70711	4509221
4265-	EMSC9221	100803	1	0.38268	100802	1	0.38268	1	0.38268	4509221
4266-	MP	5092	2	-1.	100800	2	.0	2	.0	4509212
4267-	EMSC9212	100801	2	0.38268	100802	2	0.70711	2	0.70711	4509222
4268-	EMSC9222	100803	2	0.92388	100802	2	0.92388	2	0.92388	4509222
4269-	MP	5092	3	-1.	100800	3	1.00000	3	1.00000	4509213
4270-	EMSC9213	100801	3	0.92388	100802	3	0.70711	3	0.70711	4509223
4271-	EMSC9223	100803	3	0.38268	100802	3	0.38268	3	0.38268	4509223
4272-	MP	5092	4	-1.	100800	4	.0	4	.0	4509214
4273-	EMSC9214	100801	4	0.38268	100802	4	0.70711	4	0.70711	4509224
4274-	EMSC9224	100803	4	0.92388	100802	4	0.92388	4	0.92388	4509224
4275-	MP	5092	5	-1.	100800	5	1.00000	5	1.00000	4509215
4276-	EMSC9215	100801	5	0.92388	100802	5	0.70711	5	0.70711	4509225
4277-	EMSC9225	100803	5	0.38268	100802	5	0.38268	5	0.38268	4509225
4278-	MP	5092	6	-1.	100800	6	.0	6	.0	4509216
4279-	EMSC9216	100801	6	0.38268	100802	6	0.70711	6	0.70711	4509226
4280-	EMSC9226	100803	6	0.92388	100802	6	0.92388	6	0.92388	4509226
4281-	MP	5092	1	-1.	100800	1	1.00000	1	1.00000	4509311
4282-	EMSC9311	100801	1	0.70711	100802	1	0.00000	1	0.00000	4509321
4283-	EMSC9321	100803	1	0.70711	100802	1	0.00000	1	0.00000	4509321
4284-	MP	5093	2	-1.	100800	2	.0	2	.0	4509312
4285-	EMSC9312	100801	2	0.70711	100802	2	1.00000	2	1.00000	4509322
4286-	EMSC9322	100803	2	0.70711	100802	2	0.70711	2	0.70711	4509322
4287-	MP	5093	3	-1.	100800	3	1.00000	3	1.00000	4509313
4288-	EMSC9313	100801	3	0.70711	100802	3	0.00000	3	0.00000	4509323
4289-	EMSC9323	100803	3	0.70711	100802	3	0.70711	3	0.70711	4509323
4290-	MP	5093	4	-1.	100800	4	.0	4	.0	4509314
4291-	EMSC9314	100801	4	0.70711	100802	4	1.00000	4	1.00000	4509324
4292-	EMSC9324	100803	4	0.70711	100802	4	0.70711	4	0.70711	4509324
4293-	MP	5093	5	-1.	100800	5	1.00000	5	1.00000	4509315
4294-	EMSC9315	100801	5	0.70711	100802	5	0.00000	5	0.00000	4509325
4295-	EMSC9325	100803	5	0.70711	100802	5	0.70711	5	0.70711	4509325
4296-	MP	5093	6	-1.	100800	6	.0	6	.0	4509316
4297-	EMSC9316	100801	6	0.70711	100802	6	1.00000	6	1.00000	4509326
4298-	EMSC9326	100803	6	0.70711	100802	6	0.70711	6	0.70711	4509326
4299-	MP	5094	1	-1.	100800	1	1.00000	1	1.00000	4509411
4300-	EMSC9411	100801	1	0.38268	100802	1	0.70711	1	0.70711	4509421

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4301-	EMSC9421	1	100803	1-0.92388						
4302-	MPC	5094	2	100800	2					EM509412
4303-	EMSC9412	100801		2 0.92388	100802		2 0.70711			EM509422
4304-	EMSC9422	100803		2-0.38268						
4305-	MPC	5094	3	100800	3		1.00000			EM509413
4306-	EMSC9413	100801		3 0.38268	100802		3-0.70711			EM509423
4307-	EMSC9423	100803		3-0.92388						
4308-	MPC	5094	4	100800	4		.0			EM509414
4309-	EMSC9414	100801		4 0.92388	100802		4 0.70711			EM509424
4310-	EMSC9424	100803		4-0.38268						
4311-	MPC	5094	5	100800	5		1.00000			EM509415
4312-	EMSC9415	100801		5 0.38268	100802		5-0.70711			EM509425
4313-	EMSC9425	100803		5-0.92388						
4314-	MPC	5094	6	100800	6		.0			EM509416
4315-	EMSC9416	100801		6 0.92388	100802		6 0.70711			EM509426
4316-	EMSC9426	100803		6-0.38268						
4317-	MPC	5095	1	100800	1		1.00000			EM509511
4318-	EMSC9511	100801		1 0.00000	100802		1-1.00000			EM509521
4319-	EMSC9521	100803		1-0.00000						
4320-	MPC	5095	2	100800	2		.0			EM509512
4321-	EMSC9512	100801		2 1.00000	100802		2 0.00000			EM509522
4322-	EMSC9522	100803		2-1.00000						
4323-	MPC	5095	3	100800	3		1.00000			EM509513
4324-	EMSC9513	100801		3 0.00000	100802		3-1.00000			EM509523
4325-	EMSC9523	100803		3-0.00000						
4326-	MPC	5095	4	100800	4		.0			EM509514
4327-	EMSC9514	100801		4 1.00000	100802		4 0.00000			EM509524
4328-	EMSC9524	100803		4-1.00000						
4329-	MPC	5095	5	100800	5		1.00000			EM509515
4330-	EMSC9515	100801		5 0.00000	100802		5-1.00000			EM509525
4331-	EMSC9525	100803		5-0.00000						
4332-	MPC	5095	6	100800	6		.0			EM509516
4333-	EMSC9516	100801		6 1.00000	100802		6 0.00000			EM509526
4334-	EMSC9526	100803		6-1.00000						
4335-	MPC	5096	1	100800	1		1.00000			EM509611
4336-	EMSC9611	100801		1 0.38268	100802		1-0.70711			EM509621
4337-	EMSC9621	100803		1 0.92388						
4338-	MPC	5096	2	100800	2		.0			EM509612
4339-	EMSC9612	100801		2 0.92388	100802		2-0.70711			EM509622
4340-	EMSC9622	100803		2-0.38268						
4341-	MPC	5096	3	100800	3		1.00000			EM509613
4342-	EMSC9613	100801		3 0.38268	100802		3-0.70711			EM509623
4343-	EMSC9623	100803		3 0.92388						
4344-	MPC	5096	4	100800	4		.0			EM509614
4345-	EMSC9614	100801		4 0.92388	100802		4-0.70711			EM509624
4346-	EMSC9624	100803		4-0.38268						
4347-	MPC	5096	5	100800	5		1.00000			EM509615
4348-	EMSC9615	100801		5 0.38268	100802		5-0.70711			EM509625
4349-	EMSC9625	100803		5 0.92388						
4350-	MPC	5096	6	100800	6		.0			EM509616

EXTERNAL LINK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
4301-	EMSC9616	1	100801	6	0.92388	100802	6-0.70711			EMSC9626
4302-	EMSC9626	1	100803	6-0.38269						
4303-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4304-	EMSC9626	1	100801	1	0.70711	100802		1-0.00000		EMSC9626
4305-	EMSC9626	1	100803	1	0.70711					EMSC9626
4306-	EMSC9626	1	5097	2	-1.	100800	2	2-1.00000		EMSC9626
4307-	EMSC9626	1	100801	2	0.70711	100802				EMSC9626
4308-	EMSC9626	1	100803	2	0.70711					EMSC9626
4309-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4310-	EMSC9626	1	100801	3	0.70711	100802		3-0.00000		EMSC9626
4311-	EMSC9626	1	100803	3	0.70711					EMSC9626
4312-	EMSC9626	1	5097	4	-1.	100800	4	4-1.00000		EMSC9626
4313-	EMSC9626	1	100801	4	0.70711	100802				EMSC9626
4314-	EMSC9626	1	100803	4	0.70711					EMSC9626
4315-	EMSC9626	1	5097	5	-1.	100800	5	1.00000		EMSC9626
4316-	EMSC9626	1	100801	5	0.70711	100802		5-0.00000		EMSC9626
4317-	EMSC9626	1	100803	5	0.70711					EMSC9626
4318-	EMSC9626	1	5097	6	-1.	100800	6	6-1.00000		EMSC9626
4319-	EMSC9626	1	100801	6	0.70711	100802				EMSC9626
4320-	EMSC9626	1	100803	6	0.70711					EMSC9626
4321-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4322-	EMSC9626	1	100801	1	0.92388	100802		1 0.70711		EMSC9626
4323-	EMSC9626	1	100803	1	0.38269					EMSC9626
4324-	EMSC9626	1	5097	2	-1.	100800	2	2-0.70711		EMSC9626
4325-	EMSC9626	1	100801	2	0.38269	100802				EMSC9626
4326-	EMSC9626	1	100803	2	0.38269					EMSC9626
4327-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4328-	EMSC9626	1	100801	3	0.92388	100802		3 0.70711		EMSC9626
4329-	EMSC9626	1	100803	3	0.38269					EMSC9626
4330-	EMSC9626	1	5097	4	-1.	100800	4	4-0.70711		EMSC9626
4331-	EMSC9626	1	100801	4	0.38269	100802				EMSC9626
4332-	EMSC9626	1	100803	4	0.38269					EMSC9626
4333-	EMSC9626	1	5097	5	-1.	100800	5	1.00000		EMSC9626
4334-	EMSC9626	1	100801	5	0.92388	100802		5 0.70711		EMSC9626
4335-	EMSC9626	1	100803	5	0.38269					EMSC9626
4336-	EMSC9626	1	5097	6	-1.	100800	6	6-0.70711		EMSC9626
4337-	EMSC9626	1	100801	6	0.38269	100802				EMSC9626
4338-	EMSC9626	1	100803	6	0.38269					EMSC9626
4339-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4340-	EMSC9626	1	100801	1	0.92388	100802				EMSC9626
4341-	EMSC9626	1	100803	1	0.38269					EMSC9626
4342-	EMSC9626	1	5097	2	-1.	100800	2	2-0.70711		EMSC9626
4343-	EMSC9626	1	100801	2	0.38269	100802				EMSC9626
4344-	EMSC9626	1	100803	2	0.38269					EMSC9626
4345-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4346-	EMSC9626	1	100801	3	0.92388	100802		3 0.70711		EMSC9626
4347-	EMSC9626	1	100803	3	0.38269					EMSC9626
4348-	EMSC9626	1	5097	4	-1.	100800	4	4-0.70711		EMSC9626
4349-	EMSC9626	1	100801	4	0.38269	100802				EMSC9626
4350-	EMSC9626	1	100803	4	0.38269					EMSC9626
4351-	EMSC9626	1	5097	5	-1.	100800	5	1.00000		EMSC9626
4352-	EMSC9626	1	100801	5	0.92388	100802		5 0.70711		EMSC9626
4353-	EMSC9626	1	100803	5	0.38269					EMSC9626
4354-	EMSC9626	1	5097	6	-1.	100800	6	6-0.70711		EMSC9626
4355-	EMSC9626	1	100801	6	0.38269	100802				EMSC9626
4356-	EMSC9626	1	100803	6	0.38269					EMSC9626
4357-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4358-	EMSC9626	1	100801	1	1.00000	100802		1 1.00000		EMSC9626
4359-	EMSC9626	1	100803	1	1.00000					EMSC9626
4360-	EMSC9626	1	5097	2	-1.	100800	2	2-0.00000		EMSC9626
4361-	EMSC9626	1	100801	2	0.00000	100802				EMSC9626
4362-	EMSC9626	1	100803	2	0.00000					EMSC9626
4363-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4364-	EMSC9626	1	100801	3	1.00000	100802		3 1.00000		EMSC9626
4365-	EMSC9626	1	100803	3	1.00000					EMSC9626
4366-	EMSC9626	1	5097	4	-1.	100800	4	4-0.00000		EMSC9626
4367-	EMSC9626	1	100801	4	0.00000	100802				EMSC9626
4368-	EMSC9626	1	100803	4	0.00000					EMSC9626
4369-	EMSC9626	1	5097	5	-1.	100800	5	5-0.00000		EMSC9626
4370-	EMSC9626	1	100801	5	0.00000	100802				EMSC9626
4371-	EMSC9626	1	100803	5	0.00000					EMSC9626
4372-	EMSC9626	1	5097	6	-1.	100800	6	6-0.00000		EMSC9626
4373-	EMSC9626	1	100801	6	0.00000	100802				EMSC9626
4374-	EMSC9626	1	100803	6	0.00000					EMSC9626
4375-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4376-	EMSC9626	1	100801	1	1.00000	100802		1 1.00000		EMSC9626
4377-	EMSC9626	1	100803	1	1.00000					EMSC9626
4378-	EMSC9626	1	5097	2	-1.	100800	2	2-0.70711		EMSC9626
4379-	EMSC9626	1	100801	2	0.38269	100802				EMSC9626
4380-	EMSC9626	1	100803	2	0.38269					EMSC9626
4381-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4382-	EMSC9626	1	100801	3	0.92388	100802		3 0.70711		EMSC9626
4383-	EMSC9626	1	100803	3	0.38269					EMSC9626
4384-	EMSC9626	1	5097	4	-1.	100800	4	4-0.70711		EMSC9626
4385-	EMSC9626	1	100801	4	0.38269	100802				EMSC9626
4386-	EMSC9626	1	100803	4	0.38269					EMSC9626
4387-	EMSC9626	1	5097	5	-1.	100800	5	1.00000		EMSC9626
4388-	EMSC9626	1	100801	5	0.92388	100802		5 0.70711		EMSC9626
4389-	EMSC9626	1	100803	5	0.38269					EMSC9626
4390-	EMSC9626	1	5097	6	-1.	100800	6	6-0.70711		EMSC9626
4391-	EMSC9626	1	100801	6	0.38269	100802				EMSC9626
4392-	EMSC9626	1	100803	6	0.38269					EMSC9626
4393-	EMSC9626	1	5097	1	-1.	100800	1	1.00000		EMSC9626
4394-	EMSC9626	1	100801	1	1.00000	100802		1 1.00000		EMSC9626
4395-	EMSC9626	1	100803	1	1.00000					EMSC9626
4396-	EMSC9626	1	5097	2	-1.	100800	2	2-0.00000		EMSC9626
4397-	EMSC9626	1	100801	2	0.00000	100802				EMSC9626
4398-	EMSC9626	1	100803	2	0.00000					EMSC9626
4399-	EMSC9626	1	5097	3	-1.	100800	3	1.00000		EMSC9626
4400-	EMSC9626	1	100801	3	1.00000	100802		3 1.00000		EMSC9626
4401-	EMSC9626	1	100803	3	1.00000					EMSC9626
4402-	EMSC9626	1	5097	4	-1.	100800	4	4-0.00000		EMSC9626
4403-	EMSC9626	1	100801	4	0.00000	100802				EMSC9626
4404-	EMSC9626	1	100803	4	0.00000					EMSC9626

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
23UNT										
4401-	1	5099	5	-1.	100800	5	1.00000			EMS09915
4402-				5-1.00000	100802		5 1.00000			EMS09925
4403-				5-1.00000						
4404-	1	5095	6	-1.	100800	6	.0			EMS09916
4405-				6 0.00000	100802		6-0.00000			EMS09926
4406-				6 0.00000						
4407-	1	5104	1	-1.	100900	1	1.00000			EMS10411
4408-				1 1.00000	100902		1 1.00000			EMS10421
4409-				1 1.00000						
4410-	1	5104	2	-1.	100900	2	.0			EMS10412
4411-				2 0.0	100902		2 0.0			EMS10422
4412-				2 0.0						
4413-	1	5104	3	-1.	100900	3	1.00000			EMS10413
4414-				3 1.00000	100902		3 1.00000			EMS10423
4415-				3 1.00000						
4416-	1	5104	4	-1.	100900	4	.0			EMS10414
4417-				4 0.0	100902		4 0.0			EMS10424
4418-				4 0.0						
4419-	1	5104	5	-1.	100900	5	1.00000			EMS10415
4420-				5 1.00000	100902		5 1.00000			EMS10425
4421-				5 1.00000						
4422-	1	5104	6	-1.	100900	6	.0			EMS10416
4423-				6 0.0	100902		6 0.0			EMS10426
4424-				6 0.0						
4425-	1	5105	1	-1.	100900	1	1.00000			EMS10511
4426-				1 0.92388	100902		1 0.70711			EMS10521
4427-				1 0.38268						
4428-	1	5105	2	-1.	100900	2	.0			EMS10512
4429-				2 0.38268	100902		2 0.70711			EMS10522
4430-				2 0.92388						
4431-	1	5105	3	-1.	100900	3	1.00000			EMS10513
4432-				3 0.92388	100902		3 0.70711			EMS10523
4433-				3 0.38268						
4434-	1	5105	4	-1.	100900	4	.0			EMS10514
4435-				4 0.38268	100902		4 0.70711			EMS10524
4436-				4 0.92388						
4437-	1	5105	5	-1.	100900	5	1.00000			EMS10515
4438-				5 0.92388	100902		5 0.70711			EMS10525
4439-				5 0.38268						
4440-	1	5105	6	-1.	100900	6	.0			EMS10516
4441-				6 0.38268	100902		6 0.70711			EMS10526
4442-				6 0.92388						
4443-	1	5106	1	-1.	100900	1	1.00000			EMS10611
4444-				1 0.70711	100902		1 0.00000			EMS10621
4445-				1-0.70711						
4446-	1	5106	2	-1.	100900	2	.0			EMS10612
4447-				2 0.70711	100902		2 1.00000			EMS10622
4448-				2 0.70711						
4449-	1	5106	3	-1.	100900	3	1.00000			EMS10613
4450-				3 0.70711	100902		3 0.00000			EMS10623

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
30UNT										
4451-	1	2	3	4	5	6	7	8	9	10
4452-	1	2	3	4	5	6	7	8	9	10
4453-	1	2	3	4	5	6	7	8	9	10
4454-	1	2	3	4	5	6	7	8	9	10
4455-	1	2	3	4	5	6	7	8	9	10
4456-	1	2	3	4	5	6	7	8	9	10
4457-	1	2	3	4	5	6	7	8	9	10
4458-	1	2	3	4	5	6	7	8	9	10
4459-	1	2	3	4	5	6	7	8	9	10
4460-	1	2	3	4	5	6	7	8	9	10
4461-	1	2	3	4	5	6	7	8	9	10
4462-	1	2	3	4	5	6	7	8	9	10
4463-	1	2	3	4	5	6	7	8	9	10
4464-	1	2	3	4	5	6	7	8	9	10
4465-	1	2	3	4	5	6	7	8	9	10
4466-	1	2	3	4	5	6	7	8	9	10
4467-	1	2	3	4	5	6	7	8	9	10
4468-	1	2	3	4	5	6	7	8	9	10
4469-	1	2	3	4	5	6	7	8	9	10
4470-	1	2	3	4	5	6	7	8	9	10
4471-	1	2	3	4	5	6	7	8	9	10
4472-	1	2	3	4	5	6	7	8	9	10
4473-	1	2	3	4	5	6	7	8	9	10
4474-	1	2	3	4	5	6	7	8	9	10
4475-	1	2	3	4	5	6	7	8	9	10
4476-	1	2	3	4	5	6	7	8	9	10
4477-	1	2	3	4	5	6	7	8	9	10
4478-	1	2	3	4	5	6	7	8	9	10
4479-	1	2	3	4	5	6	7	8	9	10
4480-	1	2	3	4	5	6	7	8	9	10
4481-	1	2	3	4	5	6	7	8	9	10
4482-	1	2	3	4	5	6	7	8	9	10
4483-	1	2	3	4	5	6	7	8	9	10
4484-	1	2	3	4	5	6	7	8	9	10
4485-	1	2	3	4	5	6	7	8	9	10
4486-	1	2	3	4	5	6	7	8	9	10
4487-	1	2	3	4	5	6	7	8	9	10
4488-	1	2	3	4	5	6	7	8	9	10
4489-	1	2	3	4	5	6	7	8	9	10
4490-	1	2	3	4	5	6	7	8	9	10
4491-	1	2	3	4	5	6	7	8	9	10
4492-	1	2	3	4	5	6	7	8	9	10
4493-	1	2	3	4	5	6	7	8	9	10
4494-	1	2	3	4	5	6	7	8	9	10
4495-	1	2	3	4	5	6	7	8	9	10
4496-	1	2	3	4	5	6	7	8	9	10
4497-	1	2	3	4	5	6	7	8	9	10
4498-	1	2	3	4	5	6	7	8	9	10
4499-	1	2	3	4	5	6	7	8	9	10
4500-	1	2	3	4	5	6	7	8	9	10

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4501-	CMS10912	1	100901	2	0.92388	100902	2-0.70711			CMS10922
4502-	CMS10922		100903	2-0.38269						
4503-	MPC	1	5105	3	-1.	100900	3	1.00000		CMS10913
4504-	CMS10913		100901	3-0.38268	100902		3-0.70711			CMS10923
4505-	CMS10923		100903	3	0.92388					
4506-	MPC	1	5105	4	-1.	100900	4	.0		CMS10914
4507-	CMS10914		100901	4	0.92388	100902	4-0.70711			CMS10924
4508-	CMS10924		100903	4-0.38269						
4509-	MPC	1	5105	5	-1.	100900	5	1.00000		CMS10915
4510-	CMS10915		100901	5-0.38268	100902		5-0.70711			CMS10925
4511-	CMS10925		100903	5	0.92388					
4512-	MPC	1	5105	6	-1.	100900	6	.0		CMS10916
4513-	CMS10916		100901	6	0.92388	100902	6-0.70711			CMS10926
4514-	CMS10926		100903	6-0.38269						
4515-	MPC	1	5110	1	-1.	100900	1	1.00000		CMS11011
4516-	CMS11011		100901	1-0.70711	100902		1-0.00000			CMS11021
4517-	CMS11021		100903	1	0.70711					
4518-	MPC	1	5110	2	-1.	100900	2	.0		CMS11012
4519-	CMS11012		100901	2	0.70711	100902	2-1.00000			CMS11022
4520-	CMS11022		100903	2	0.70710					
4521-	MPC	1	5110	3	-1.	100900	3	1.00000		CMS11013
4522-	CMS11013		100901	3-0.70711	100902		3-0.00000			CMS11023
4523-	CMS11023		100903	3	0.70711					
4524-	MPC	1	5110	4	-1.	100900	4	.0		CMS11014
4525-	CMS11014		100901	4	0.70711	100902	4-1.00000			CMS11024
4526-	CMS11024		100903	4	0.70710					
4527-	MPC	1	5110	5	-1.	100900	5	1.00000		CMS11015
4528-	CMS11015		100901	5-0.70711	100902		5-0.00000			CMS11025
4529-	CMS11025		100903	5	0.70711					
4530-	MPC	1	5110	6	-1.	100900	6	.0		CMS11016
4531-	CMS11016		100901	6	0.70711	100902	6-1.00000			CMS11026
4532-	CMS11026		100903	6	0.70710					
4533-	MPC	1	5111	1	-1.	100900	1	1.00000		CMS11111
4534-	CMS11111		100901	1-0.92388	100902		1	0.70711		CMS11121
4535-	CMS11121		100903	1-0.38268						
4536-	MPC	1	5111	2	-1.	100900	2	.0		CMS11112
4537-	CMS11112		100901	2	0.38268	100902	2-0.70711			CMS11122
4538-	CMS11122		100903	2	0.92388					
4539-	MPC	1	5111	3	-1.	100900	3	1.00000		CMS11113
4540-	CMS11113		100901	3-0.92388	100902		3	0.70711		CMS11123
4541-	CMS11123		100903	3-0.38268						
4542-	MPC	1	5111	4	-1.	100900	4	.0		CMS11114
4543-	CMS11114		100901	4	0.38268	100902	4-0.70711			CMS11124
4544-	CMS11124		100903	4	0.92388					
4545-	MPC	1	5111	5	-1.	100900	5	1.00000		CMS11115
4546-	CMS11115		100901	5-0.92388	100902		5	0.70711		CMS11125
4547-	CMS11125		100903	5-0.38268						
4548-	MPC	1	5111	6	-1.	100900	6	.0		CMS11116
4549-	CMS11116		100901	6	0.38268	100902	6-0.70711			CMS11126
4550-	CMS11126		100903	6	0.92388					

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4551-	MP	1	5112	1	-1.	100900	1	1.00000		EMS11211
4552-	EMS11211		100901		1-1.00000	100902		1.00000		EMS11221
4553-	EMS11221		100903		1-1.00000					
4554-	MP	1	5112	2	-1.	100900	2	.0		EMS11212
4555-	EMS11212		100901		2 0.00000	100902		2-0.00000		EMS11222
4556-	EMS11222		100903		2 0.00000					
4557-	MP	1	5112	3	-1.	100900	3	1.00000		EMS11213
4558-	EMS11213		100901		3-1.00000	100902		3 1.00000		EMS11223
4559-	EMS11223		100903		3-1.00000					
4560-	MP	1	5112	4	-1.	100900	4	.0		EMS11214
4561-	EMS11214		100901		4 0.00000	100902		4-0.00000		EMS11224
4562-	EMS11224		100903		4 0.00000					
4563-	MP	1	5112	5	-1.	100900	5	1.00000		EMS11215
4564-	EMS11215		100901		5-1.00000	100902		5 1.00000		EMS11225
4565-	EMS11225		100903		5-1.00000					
4566-	MP	1	5112	6	-1.	100900	6	.0		EMS11216
4567-	EMS11216		100901		6 0.00000	100902		6-0.00000		EMS11226
4568-	EMS11226		100903		6 0.00000					
4569-	MP	1	5117	1	-1.	101000	1	1.00000		EMS11711
4570-	EMS11711		101001		1 1.00000	101002		1 1.00000		EMS11721
4571-	EMS11721		101003		1 1.00000					
4572-	MP	1	5117	2	-1.	101000	2	1.00000		EMS11712
4573-	EMS11712		101001		2 1.00000	101002		2 1.00000		EMS11722
4574-	EMS11722		101003		2 1.00000					
4575-	MP	1	5117	3	-1.	101000	3	.0		EMS11713
4576-	EMS11713		101001		3 0.0	101002		3 0.0		EMS11723
4577-	EMS11723		101003		3 0.0					
4578-	MP	1	5117	4	-1.	101000	4	.0		EMS11714
4579-	EMS11714		101001		4 0.0	101002		4 0.0		EMS11724
4580-	EMS11724		101003		4 0.0					
4581-	MP	1	5117	5	-1.	101000	5	.0		EMS11715
4582-	EMS11715		101001		5 0.0	101002		5 0.0		EMS11725
4583-	EMS11725		101003		5 0.0					
4584-	MP	1	5117	6	-1.	101000	6	1.00000		EMS11716
4585-	EMS11716		101001		6 1.00000	101002		6 1.00000		EMS11726
4586-	EMS11726		101003		6 1.00000					
4587-	MP	1	5118	1	-1.	101000	1	1.00000		EMS11811
4588-	EMS11811		101001		1 0.92388	101002		1 0.70711		EMS11821
4589-	EMS11821		101003		1 0.38268					
4590-	MP	1	5118	2	-1.	101000	2	1.00000		EMS11812
4591-	EMS11812		101001		2 0.92388	101002		2 0.70711		EMS11822
4592-	EMS11822		101003		2 0.38268					
4593-	MP	1	5118	3	-1.	101000	3	.0		EMS11813
4594-	EMS11813		101001		3 0.38268	101002		3 0.70711		EMS11823
4595-	EMS11823		101003		3 0.92388					
4596-	MP	1	5118	4	-1.	101000	4	.0		EMS11814
4597-	EMS11814		101001		4 0.38268	101002		4 0.70711		EMS11824
4598-	EMS11824		101003		4 0.92388					
4599-	MP	1	5118	5	-1.	101000	5	.0		EMS11815
4600-	EMS11815		101001		5 0.38268	101002		5 0.70711		EMS11825

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
4601-	EMS11825	1	101003	5	0.92388					
4602-	MPC		5112	-1.	101000	6	1.00000			EMS11816
4603-	EMS11816	6	101001	6	0.92388	101002	6	0.70711		EMS11826
4604-	EMS11826		101003	6	0.38268					
4605-	MPC	1	5119	-1.	101000	1	1.00000			EMS11911
4606-	EMS11911		101001	1	0.70711	101002	1	0.00000		EMS11921
4607-	EMS11921		101003	1	0.70711					
4608-	MPC	1	5115	-1.	101000	2	1.00000			EMS11912
4609-	EMS11912		101001	2	0.70711	101002	2	0.00000		EMS11922
4610-	EMS11922		101003	2	0.70711					
4611-	MPC	1	5119	-1.	101000	3	.0			EMS11913
4612-	EMS11913		101001	3	0.70711	101002	3	1.00000		EMS11923
4613-	EMS11923		101003	3	0.70711					
4614-	MPC	1	5115	-1.	101000	4	.0			EMS11914
4615-	EMS11914		101001	4	0.70711	101002	4	1.00000		EMS11924
4616-	EMS11924		101003	4	0.70711					
4617-	MPC	1	5115	-1.	101000	5	.0			EMS11915
4618-	EMS11915		101001	5	0.70711	101002	5	1.00000		EMS11925
4619-	EMS11925		101003	5	0.70711					
4620-	MPC	1	5115	-1.	101000	6	1.00000			EMS11916
4621-	EMS11916		101001	6	0.70711	101002	6	0.00000		EMS11926
4622-	EMS11926		101003	6	0.70711					
4623-	MPC	1	5120	-1.	101000	1	1.00000			EMS12011
4624-	EMS12011		101001	1	0.38268	101002	1	0.70711		EMS12021
4625-	EMS12021		101003	1	0.92388					
4626-	MPC	1	5120	-1.	101000	2	1.00000			EMS12012
4627-	EMS12012		101001	2	0.38268	101002	2	0.70711		EMS12022
4628-	EMS12022		101003	2	0.92388					
4629-	MPC	1	5120	-1.	101000	3	.0			EMS12013
4630-	EMS12013		101001	3	0.92388	101002	3	0.70711		EMS12023
4631-	EMS12023		101003	3	0.38268					
4632-	MPC	1	5120	-1.	101000	4	.0			EMS12014
4633-	EMS12014		101001	4	0.92388	101002	4	0.70711		EMS12024
4634-	EMS12024		101003	4	0.38268					
4635-	MPC	1	5120	-1.	101000	5	.0			EMS12015
4636-	EMS12015		101001	5	0.92388	101002	5	0.70711		EMS12025
4637-	EMS12025		101003	5	0.38268					
4638-	MPC	1	5120	-1.	101000	6	1.00000			EMS12016
4639-	EMS12016		101001	6	0.38268	101002	6	0.70711		EMS12026
4640-	EMS12026		101003	6	0.92388					
4641-	MPC	1	5121	-1.	101000	1	1.00000			EMS12111
4642-	EMS12111		101001	1	0.00000	101002	1	1.00000		EMS12121
4643-	EMS12121		101003	1	0.00000					
4644-	MPC	1	5121	-1.	101000	2	1.00000			EMS12112
4645-	EMS12112		101001	2	0.00000	101002	2	1.00000		EMS12122
4646-	EMS12122		101003	2	0.00000					
4647-	MPC	1	5121	-1.	101000	3	.0			EMS12113
4648-	EMS12113		101001	3	1.00000	101002	3	0.00000		EMS12123
4649-	EMS12123		101003	3	1.00000					
4650-	MPC	1	5121	-1.	101000	4	.0			EMS12114

S O R T E D B U L K D A T A E C H O										
1	2	3	4	5	6	7	8	9	10	
6470										
COUNT										
4651-	1	101001	4	1.00000	101002	4	0.00000		10	64512124
4652-		101003		1.00000						
4653-	5	5121	5	-1.	101000	5	0			64512115
4654-		101001		5	1.00000	101002	5	0.00000		64512125
4655-		101003		5	1.00000					
4656-	1	5121	6	-1.	101000	6	1.00000			64512116
4657-		101001		6	0.00000	101002	6	1.00000		64512126
4658-		101003		6	0.00000					
4659-	1	5122	1	-1.	101000	1	1.00000			64512211
4660-		101001		1	0.92388	101002	1	0.70711		64512221
4661-		101003		1	0.92388					
4662-	1	5122	2	-1.	101000	2	1.00000			64512212
4663-		101001		2	0.92388	101002	2	0.70711		64512222
4664-		101003		2	0.92388					
4665-	1	5122	3	-1.	101000	3	0			64512213
4666-		101001		3	0.92388	101002	3	0.70711		64512223
4667-		101003		3	0.92388					
4668-	1	5122	4	-1.	101000	4	0			64512214
4669-		101001		4	0.92388	101002	4	0.70711		64512224
4670-		101003		4	0.92388					
4671-	1	5122	5	-1.	101000	5	0			64512215
4672-		101001		5	0.92388	101002	5	0.70711		64512225
4673-		101003		5	0.92388					
4674-	1	5122	6	-1.	101000	6	1.00000			64512216
4675-		101001		6	0.92388	101002	6	0.70711		64512226
4676-		101003		6	0.92388					
4677-	1	5122	1	-1.	101000	1	1.00000			64512311
4678-		101001		1	0.70711	101002	1	0.00000		64512321
4679-		101003		1	0.70711					
4680-	1	5122	2	-1.	101000	2	1.00000			64512312
4681-		101001		2	0.70711	101002	2	0.00000		64512322
4682-		101003		2	0.70711					
4683-	1	5122	3	-1.	101000	3	0			64512313
4684-		101001		3	0.70711	101002	3	1.00000		64512323
4685-		101003		3	0.70711					
4686-	1	5122	4	-1.	101000	4	0			64512314
4687-		101001		4	0.70711	101002	4	1.00000		64512324
4688-		101003		4	0.70711					
4689-	1	5122	5	-1.	101000	5	0			64512315
4690-		101001		5	0.70711	101002	5	1.00000		64512325
4691-		101003		5	0.70711					
4692-	1	5122	6	-1.	101000	6	1.00000			64512316
4693-		101001		6	0.70711	101002	6	0.00000		64512326
4694-		101003		6	0.70711					
4695-	1	5124	1	-1.	101000	1	1.00000			64512411
4696-		101001		1	0.92388	101002	1	0.70711		64512421
4697-		101003		1	0.92388					
4698-	1	5124	2	-1.	101000	2	1.00000			64512412
4699-		101001		2	0.92388	101002	2	0.70711		64512422
4700-		101003		2	0.92388					

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4701-	1	5124	3	-1.	101000	3	.0			CM512413
4702-	CM512413	101001	3	3 0.38268	101002		3-0.70711			CM512423
4703-	CM512423	101003	4	3 0.92388						
4704-	4PC	5124	4	-1.	101000	4	.0			CM512414
4705-	CM512414	101001	4	4 0.38268	101002		4-0.70711			CM512424
4706-	CM512424	101003	5	4 0.92388						
4707-	4PC	5124	5	-1.	101000	5	.0			CM512415
4708-	CM512415	101001	5	5 0.38268	101002		5-0.70711			CM512425
4709-	CM512425	101003	6	5 0.92388						
4710-	4PC	5124	6	-1.	101000	6	1.00000			CM512416
4711-	CM512416	101001	6	6-0.92388	101002		6 0.70711			CM512426
4712-	CM512426	101003	1	6-0.38268						
4713-	4PC	5125	1	-1.	101000	1	1.00000			CM512511
4714-	CM512511	101001	1	1-1.00000	101002		1 1.00000			CM512521
4715-	CM512521	101003	2	1-1.00000						
4716-	4PC	5125	2	-1.	101000	2	1.00000			CM512512
4717-	CM512512	101001	2	2-1.00000	101002		2 1.00000			CM512522
4718-	CM512522	101003	3	2-1.00000						
4719-	4PC	5125	3	-1.	101000	3	.0			CM512513
4720-	CM512513	101001	3	3 0.00000	101002		3-0.00000			CM512523
4721-	CM512523	101003	4	3 0.00000						
4722-	4PC	5125	4	-1.	101000	4	.0			CM512514
4723-	CM512514	101001	4	4 0.00000	101002		4-0.00000			CM512524
4724-	CM512524	101003	5	4 0.00000						
4725-	4PC	5125	5	-1.	101000	5	.0			CM512515
4726-	CM512515	101001	5	5 0.00000	101002		5-0.00000			CM512525
4727-	CM512525	101003	6	5 0.00000						
4728-	4PC	5125	6	-1.	101000	6	1.00000			CM512516
4729-	CM512516	101001	6	6-1.00000	101002		6 1.00000			CM512526
4730-	CM512526	101003	1	6-1.00000						
4731-	4PC	5126	1	-1.	101000	1	1.00000			CM512611
4732-	CM512611	101001	1	1 0.19732	101002		1-0.92213			CM512621
4733-	CM512621	101003	2	1-0.56122						
4734-	4PC	5126	2	-1.	101000	2	1.00000			CM512612
4735-	CM512612	101001	2	2 0.19732	101002		2-0.92213			CM512622
4736-	CM512622	101003	3	2-0.56122						
4737-	4PC	5126	3	-1.	101000	3	.0			CM512613
4738-	CM512613	101001	3	3 0.98034	101002		3 0.38687			CM512623
4739-	CM512623	101003	4	3-0.82767						
4740-	4PC	5126	4	-1.	101000	4	.0			CM512614
4741-	CM512614	101001	4	4 0.98034	101002		4 0.38687			CM512624
4742-	CM512624	101003	5	4-0.82767						
4743-	4PC	5126	5	-1.	101000	5	.0			CM512615
4744-	CM512615	101001	5	5 0.98034	101002		5 0.38687			CM512625
4745-	CM512625	101003	6	5-0.82767						
4746-	4PC	5126	6	-1.	101000	6	1.00000			CM512616
4747-	CM512616	101001	6	6 0.19732	101002		6-0.92213			CM512626
4748-	CM512626	101003	1	6-0.56122						
4749-	4PC	5130	1	-1.	101100	1	1.00000			CM513011
4750-	CM513011	101101	1	1 1.00000	101102		1 1.00000			CM513021

EXTERNAL NK W. FLUID

HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
4751-	CM513021	1	101103	1	1.00000					
4752-	MPC	5130	2		-1.	101100	2	1.00000		CM513012
4753-	CM513012		101101		2	1.00000	101102	2	1.00000	CM513022
4754-	CM513022		101103		2	1.00000				
4755-	MPC	5130	3		-1.	101100	3	.0		CM513013
4756-	CM513013		101101		3	0.0	101102	3	0.0	CM513023
4757-	CM513023		101103		3	0.0				
4758-	MPC	5130	4		-1.	101100	4	.0		CM513014
4759-	CM513014		101101		4	0.0	101102	4	0.0	CM513024
4760-	CM513024		101103		4	0.0				
4761-	MPC	5130	5		-1.	101100	5	.0		CM513015
4762-	CM513015		101101		5	0.0	101102	5	0.0	CM513025
4763-	CM513025		101103		5	0.0				
4764-	MPC	5130	6		-1.	101100	6	1.00000		CM513016
4765-	CM513016		101101		6	1.00000	101102	6	1.00000	CM513026
4766-	CM513026		101103		6	1.00000				
4767-	MPC	5131	1		-1.	101100	1	1.00000		CM513111
4768-	CM513111		101101		1	0.92388	101102	1	0.70711	CM513121
4769-	CM513121		101103		1	0.38268				
4770-	MPC	5131	2		-1.	101100	2	1.00000		CM513112
4771-	CM513112		101101		2	0.92388	101102	2	0.70711	CM513122
4772-	CM513122		101103		2	0.38268				
4773-	MPC	5131	3		-1.	101100	3	.0		CM513113
4774-	CM513113		101101		3	0.38268	101102	3	0.70711	CM513123
4775-	CM513123		101103		3	0.92388				
4776-	MPC	5131	4		-1.	101100	4	.0		CM513114
4777-	CM513114		101101		4	0.38268	101102	4	0.70711	CM513124
4778-	CM513124		101103		4	0.92388				
4779-	MPC	5131	5		-1.	101100	5	.0		CM513115
4780-	CM513115		101101		5	0.38268	101102	5	0.70711	CM513125
4781-	CM513125		101103		5	0.92388				
4782-	MPC	5131	6		-1.	101100	6	1.00000		CM513116
4783-	CM513116		101101		6	0.92388	101102	6	0.70711	CM513126
4784-	CM513126		101103		6	0.38268				
4785-	MPC	5132	1		-1.	101100	1	1.00000		CM513211
4786-	CM513211		101101		1	0.70711	101102	1	0.00000	CM513221
4787-	CM513221		101103		1	0.70711				
4788-	MPC	5132	2		-1.	101100	2	1.00000		CM513212
4789-	CM513212		101101		2	0.70711	101102	2	0.00000	CM513222
4790-	CM513222		101103		2	0.70711				
4791-	MPC	5132	3		-1.	101100	3	.0		CM513213
4792-	CM513213		101101		3	0.70711	101102	3	1.00000	CM513223
4793-	CM513223		101103		3	0.70711				
4794-	MPC	5132	4		-1.	101100	4	.0		CM513214
4795-	CM513214		101101		4	0.70711	101102	4	1.00000	CM513224
4796-	CM513224		101103		4	0.70711				
4797-	MPC	5132	5		-1.	101100	5	.0		CM513215
4798-	CM513215		101101		5	0.70711	101102	5	1.00000	CM513225
4799-	CM513225		101103		5	0.70711				
4800-	MPC	5132	6		-1.	101100	6	1.00000		CM513216

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
4301-	EM513216		101101	6	0.70711	101102		0.00000		EM513226
4302-	EM513226		101103	6	0.70711					
4303-	MPC	5132	1	-1.	101100	1	1.00000			EM513311
4304-	EM513311		101101	1	0.38268	101102	1	0.70711		EM513321
4305-	EM513321		101103	1	0.92388					
4306-	MPC	5132	2	-1.	101100	2	1.00000			EM513312
4307-	EM513312		101101	2	0.38268	101102		2-0.70711		EM513322
4308-	EM513322		101103	2	0.92388					
4309-	MPC	5132	3	-1.	101100	3	.0			EM513313
4310-	EM513313		101101	3	0.92388	101102	3	0.70711		EM513323
4311-	EM513323		101103	3	0.38268					
4312-	MPC	5132	4	-1.	101100	4	.0			EM513314
4313-	EM513314		101101	4	0.92388	101102	4	0.70711		EM513324
4314-	EM513324		101103	4	0.38268					
4315-	MPC	5132	5	-1.	101100	5	.0			EM513315
4316-	EM513315		101101	5	0.92388	101102	5	0.70711		EM513325
4317-	EM513325		101103	5	0.38268					
4318-	MPC	5132	6	-1.	101100	6	1.00000			EM513316
4319-	EM513316		101101	6	0.38268	101102		6-0.70711		EM513326
4320-	EM513326		101103	6	0.92388					
4321-	MPC	5132	1	-1.	101100	1	1.00000			EM513411
4322-	EM513411		101101	1	0.00000	101102	1	1.00000		EM513421
4323-	EM513421		101103	1	0.00000					
4324-	MPC	5132	2	-1.	101100	2	1.00000			EM513412
4325-	EM513412		101101	2	0.00000	101102	2	1.00000		EM513422
4326-	EM513422		101103	2	0.00000					
4327-	MPC	5132	3	-1.	101100	3	.0			EM513413
4328-	EM513413		101101	3	1.00000	101102	3	0.00000		EM513423
4329-	EM513423		101103	3	1.00000					
4330-	MPC	5132	4	-1.	101100	4	.0			EM513414
4331-	EM513414		101101	4	1.00000	101102	4	0.00000		EM513424
4332-	EM513424		101103	4	1.00000					
4333-	MPC	5132	5	-1.	101100	5	.0			EM513415
4334-	EM513415		101101	5	1.00000	101102	5	0.00000		EM513425
4335-	EM513425		101103	5	1.00000					
4336-	MPC	5132	6	-1.	101100	6	1.00000			EM513416
4337-	EM513416		101101	6	0.00000	101102	6	1.00000		EM513426
4338-	EM513426		101103	6	0.00000					
4339-	MPC	5132	1	-1.	101100	1	1.00000			EM513511
4340-	EM513511		101101	1	0.38268	101102	1	0.70711		EM513521
4341-	EM513521		101103	1	0.92388					
4342-	MPC	5132	2	-1.	101100	2	1.00000			EM513512
4343-	EM513512		101101	2	0.38268	101102	2	0.70711		EM513522
4344-	EM513522		101103	2	0.92388					
4345-	MPC	5132	3	-1.	101100	3	.0			EM513513
4346-	EM513513		101101	3	0.92388	101102	3	0.70711		EM513523
4347-	EM513523		101103	3	0.38268					
4348-	MPC	5132	4	-1.	101100	4	.0			EM513514
4349-	EM513514		101101	4	0.92388	101102	4	0.70711		EM513524
4350-	EM513524		101103	4	0.38268					

EXTERNAL LINK 1. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO										
CARD	1	2	3	4	5	6	7	8	9	10
33001	1	5135	5	-1.	101100	5	.0			EMS13515
4351-	1	101101	5	5 0.92388	101102		5-0.70711			EMS13525
4352-	1	101103	6	5-0.38268						
4353-	1	5135	6	-1.	101100	6	1.00000			EMS13516
4354-	1	101101		6-0.38268	101102		6-0.70711			EMS13526
4355-	1	101103		6 0.92388						
4356-	1	5136	1	-1.	101100	1	1.00000			EMS13611
4357-	1	101101		1-0.70711	101102		1-0.00000			EMS13621
4358-	1	101103		1 0.70711						
4359-	1	5136	2	-1.	101100	2	1.00000			EMS13612
4360-	1	101101		2-0.70711	101102		2-0.00000			EMS13622
4361-	1	101103		2 0.70711						
4362-	1	5136	3	-1.	101100	3	.0			EMS13613
4363-	1	101101		3 0.70711	101102		3-1.00000			EMS13623
4364-	1	101103		3 0.70710						
4365-	1	5136	4	-1.	101100	4	.0			EMS13614
4366-	1	101101		4 0.70711	101102		4-1.00000			EMS13624
4367-	1	101103		4 0.70710						
4368-	1	5136	5	-1.	101100	5	.0			EMS13615
4369-	1	101101		5 0.70711	101102		5-1.00000			EMS13625
4370-	1	101103		5 0.70710						
4371-	1	5136	6	-1.	101100	6	1.00000			EMS13616
4372-	1	101101		6-0.70711	101102		6-0.00000			EMS13626
4373-	1	101103		6 0.70711						
4374-	1	5137	1	-1.	101100	1	1.00000			EMS13711
4375-	1	101101		1-0.92388	101102		1 0.70711			EMS13721
4376-	1	101103		1-0.38268						
4377-	1	5137	2	-1.	101100	2	1.00000			EMS13712
4378-	1	101101		2-0.92388	101102		2 0.70711			EMS13722
4379-	1	101103		2-0.38268						
4380-	1	5137	3	-1.	101100	3	.0			EMS13713
4381-	1	101101		3 0.38268	101102		3-0.70711			EMS13723
4382-	1	101103		3 0.92388						
4383-	1	5137	4	-1.	101100	4	.0			EMS13714
4384-	1	101101		4 0.38268	101102		4-0.70711			EMS13724
4385-	1	101103		4 0.92388						
4386-	1	5137	5	-1.	101100	5	.0			EMS13715
4387-	1	101101		5 0.38268	101102		5-0.70711			EMS13725
4388-	1	101103		5 0.92388						
4389-	1	5137	6	-1.	101100	6	1.00000			EMS13716
4390-	1	101101		6-0.92388	101102		6 0.70711			EMS13726
4391-	1	101103		6-0.38268						
4392-	1	5138	1	-1.	101100	1	1.00000			EMS13811
4393-	1	101101		1-1.00000	101102		1 1.00000			EMS13821
4394-	1	101103		1-1.00000						
4395-	1	5138	2	-1.	101100	2	1.00000			EMS13812
4396-	1	101101		2-1.00000	101102		2 1.00000			EMS13822
4397-	1	101103		2-1.00000						
4398-	1	5138	3	-1.	101100	3	.0			EMS13813
4399-	1	101101		3 0.00000	101102		3-0.00000			EMS13823

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CDUNT										
4301-	1	2	3	4	5	6	7	8	9	10
4302-	1	2	3	4	5	6	7	8	9	10
4303-	1	2	3	4	5	6	7	8	9	10
4304-	1	2	3	4	5	6	7	8	9	10
4305-	1	2	3	4	5	6	7	8	9	10
4306-	1	2	3	4	5	6	7	8	9	10
4307-	1	2	3	4	5	6	7	8	9	10
4308-	1	2	3	4	5	6	7	8	9	10
4309-	1	2	3	4	5	6	7	8	9	10
4310-	1	2	3	4	5	6	7	8	9	10
4311-	1	2	3	4	5	6	7	8	9	10
4312-	1	2	3	4	5	6	7	8	9	10
4313-	1	2	3	4	5	6	7	8	9	10
4314-	1	2	3	4	5	6	7	8	9	10
4315-	1	2	3	4	5	6	7	8	9	10
4316-	1	2	3	4	5	6	7	8	9	10
4317-	1	2	3	4	5	6	7	8	9	10
4318-	1	2	3	4	5	6	7	8	9	10
4319-	1	2	3	4	5	6	7	8	9	10
4320-	1	2	3	4	5	6	7	8	9	10
4321-	1	2	3	4	5	6	7	8	9	10
4322-	1	2	3	4	5	6	7	8	9	10
4323-	1	2	3	4	5	6	7	8	9	10
4324-	1	2	3	4	5	6	7	8	9	10
4325-	1	2	3	4	5	6	7	8	9	10
4326-	1	2	3	4	5	6	7	8	9	10
4327-	1	2	3	4	5	6	7	8	9	10
4328-	1	2	3	4	5	6	7	8	9	10
4329-	1	2	3	4	5	6	7	8	9	10
4330-	1	2	3	4	5	6	7	8	9	10
4331-	1	2	3	4	5	6	7	8	9	10
4332-	1	2	3	4	5	6	7	8	9	10
4333-	1	2	3	4	5	6	7	8	9	10
4334-	1	2	3	4	5	6	7	8	9	10
4335-	1	2	3	4	5	6	7	8	9	10
4336-	1	2	3	4	5	6	7	8	9	10
4337-	1	2	3	4	5	6	7	8	9	10
4338-	1	2	3	4	5	6	7	8	9	10
4339-	1	2	3	4	5	6	7	8	9	10
4340-	1	2	3	4	5	6	7	8	9	10
4341-	1	2	3	4	5	6	7	8	9	10
4342-	1	2	3	4	5	6	7	8	9	10
4343-	1	2	3	4	5	6	7	8	9	10
4344-	1	2	3	4	5	6	7	8	9	10
4345-	1	2	3	4	5	6	7	8	9	10
4346-	1	2	3	4	5	6	7	8	9	10
4347-	1	2	3	4	5	6	7	8	9	10
4348-	1	2	3	4	5	6	7	8	9	10
4349-	1	2	3	4	5	6	7	8	9	10
4350-	1	2	3	4	5	6	7	8	9	10

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
4331-	CM514512	101201	2	0.70711	101202	2	0.00000	9	..	10
4332-	CM514522	101203	2	0.70711	101202	2	0.00000	9	..	10
4333-	CM514513	101201	3	0.70711	101200	3	0.00000	9	..	10
4334-	CM514523	101203	3	0.70711	101202	3	0.00000	9	..	10
4335-	CM514514	101201	4	0.70711	101200	4	0.00000	9	..	10
4336-	CM514524	101203	4	0.70711	101202	4	0.00000	9	..	10
4337-	CM514515	101201	5	0.70711	101200	5	0.00000	9	..	10
4338-	CM514525	101203	5	0.70711	101202	5	0.00000	9	..	10
4339-	CM514516	101201	6	0.70711	101200	6	0.00000	9	..	10
4340-	CM514526	101203	6	0.70711	101202	6	0.00000	9	..	10
4341-	CM514611	101201	1	0.38268	101202	1	0.00000	9	..	10
4342-	CM514621	101203	1	0.38268	101202	1	0.00000	9	..	10
4343-	CM514612	101201	2	0.38268	101200	2	0.00000	9	..	10
4344-	CM514622	101203	2	0.38268	101202	2	0.00000	9	..	10
4345-	CM514613	101201	3	0.38268	101200	3	0.00000	9	..	10
4346-	CM514623	101203	3	0.38268	101202	3	0.00000	9	..	10
4347-	CM514614	101201	4	0.38268	101200	4	0.00000	9	..	10
4348-	CM514624	101203	4	0.38268	101202	4	0.00000	9	..	10
4349-	CM514615	101201	5	0.38268	101200	5	0.00000	9	..	10
4350-	CM514625	101203	5	0.38268	101202	5	0.00000	9	..	10
4351-	CM514616	101201	6	0.38268	101200	6	0.00000	9	..	10
4352-	CM514626	101203	6	0.38268	101202	6	0.00000	9	..	10
4353-	CM514711	101201	1	0.00000	101202	1	0.00000	9	..	10
4354-	CM514721	101203	1	0.00000	101202	1	0.00000	9	..	10
4355-	CM514712	101201	2	0.00000	101200	2	0.00000	9	..	10
4356-	CM514722	101203	2	0.00000	101202	2	0.00000	9	..	10
4357-	CM514713	101201	3	0.00000	101200	3	0.00000	9	..	10
4358-	CM514723	101203	3	0.00000	101202	3	0.00000	9	..	10
4359-	CM514714	101201	4	0.00000	101200	4	0.00000	9	..	10
4360-	CM514724	101203	4	0.00000	101202	4	0.00000	9	..	10
4361-	CM514715	101201	5	0.00000	101200	5	0.00000	9	..	10
4362-	CM514725	101203	5	0.00000	101202	5	0.00000	9	..	10
4363-	CM514716	101201	6	0.00000	101200	6	0.00000	9	..	10
4364-	CM514726	101203	6	0.00000	101202	6	0.00000	9	..	10

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Volume II

S O R T E D B U L K D A T A E C M D

CARD	1	2	3	4	5	6	7	8	9	10
CMUT	1									
5001-	1		5148	1	-1.	101200	1	1.00000		CM514811
5002-			101201		1-0.38268	101202		1-0.70711		CM514821
5003-			101203		1 0.92388					
5004-	1		5148	2	-1.	101200	2	1.00000		CM514812
5005-			101201		2-0.38268	101202		2-0.70711		CM514822
5006-			101203		2 0.92388					
5007-	1		5148	3	-1.	101200	3	.0		CM514813
5008-			101201		3 0.92388	101202		3-0.70711		CM514823
5009-			101203		3-0.38268					
5010-	1		5148	4	-1.	101200	4	.0		CM514814
5011-			101201		4 0.92388	101202		4-0.70711		CM514824
5012-			101203		4-0.38268					
5013-	1		5148	5	-1.	101200	5	.0		CM514815
5014-			101201		5 0.92388	101202		5-0.70711		CM514825
5015-			101203		5-0.38268					
5016-	1		5148	6	-1.	101200	6	1.00000		CM514816
5017-			101201		6-0.38268	101202		6-0.70711		CM514826
5018-			101203		6 0.92388					
5019-	1		5148	1	-1.	101200	1	1.00000		CM514911
5020-			101201		1-0.70711	101202		1-0.00000		CM514921
5021-			101203		1 0.70711					
5022-	1		5148	2	-1.	101200	2	1.00000		CM514912
5023-			101201		2-0.70711	101202		2-0.00000		CM514922
5024-			101203		2 0.70711					
5025-	1		5148	3	-1.	101200	3	.0		CM514913
5026-			101201		3 0.70711	101202		3-1.00000		CM514923
5027-			101203		3 0.70710					
5028-	1		5148	4	-1.	101200	4	.0		CM514914
5029-			101201		4 0.70711	101202		4-1.00000		CM514924
5030-			101203		4 0.70710					
5031-	1		5148	5	-1.	101200	5	.0		CM514915
5032-			101201		5 0.70711	101202		5-1.00000		CM514925
5033-			101203		5 0.70710					
5034-	1		5148	6	-1.	101200	6	1.00000		CM514916
5035-			101201		6-0.70711	101202		6-0.00000		CM514926
5036-			101203		6 0.70711					
5037-	1		5150	1	-1.	101200	1	1.00000		CM515011
5038-			101201		1-0.92388	101202		1 0.70711		CM515021
5039-			101203		1-0.38268					
5040-	1		5150	2	-1.	101200	2	1.00000		CM515012
5041-			101201		2-0.92388	101202		2 0.70711		CM515022
5042-			101203		2-0.38268					
5043-	1		5150	3	-1.	101200	3	.0		CM515013
5044-			101201		3 0.38268	101202		3-0.70711		CM515023
5045-			101203		3 0.92388					
5046-	1		5150	4	-1.	101200	4	.0		CM515014
5047-			101201		4 0.38268	101202		4-0.70711		CM515024
5048-			101203		4 0.92388					
5049-	1		5150	5	-1.	101200	5	.0		CM515015
5050-			101201		5 0.38268	101202		5-0.70711		CM515025

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5051-	CM515025	101203	5 0.92388							
5052-	MPC 1	5156 6	-1.	101200 6	1.00000					CM515016
5053-	CM515016	101201	6-0.92388	101202	6 0.70711					CM515026
5054-	CM515026	101203	6-0.38268							
5055-	MPC 1	5151 1	-1.	101200 1	1.00000					CM515111
5056-	CM515111	101201	1-1.00000	101202	1 1.00000					CM515121
5057-	CM515121	101203	1-1.00000							
5058-	MPC 1	5151 2	-1.	101200 2	1.00000					CM515112
5059-	CM515112	101201	2-1.00000	101202	2 1.00000					CM515122
5060-	CM515122	101203	2-1.00000							
5061-	MPC 1	5151 3	-1.	101200 3	.0					CM515113
5062-	CM515113	101201	3 0.00000	101202	3-3.00000					CM515123
5063-	CM515123	101203	3 0.00000							
5064-	MPC 1	5151 4	-1.	101200 4	.0					CM515114
5065-	CM515114	101201	4 0.00000	101202	4-0.00000					CM515124
5066-	CM515124	101203	4 0.00000							
5067-	MPC 1	5151 5	-1.	101200 5	.0					CM515115
5068-	CM515115	101201	5 0.00000	101202	5-0.00000					CM515125
5069-	CM515125	101203	5 0.00000							
5070-	MPC 1	5151 6	-1.	101200 6	1.00000					CM515116
5071-	CM515116	101201	6-1.00000	101202	6 1.00000					CM515126
5072-	CM515126	101203	6-1.00000							
5073-	MPC 1	5156 1	-1.	101300 1	1.00000					CM515611
5074-	CM515611	101301	1 1.00000	101302	1 1.00000					CM515621
5075-	CM515621	101303	1 1.00000							
5076-	MPC 1	5156 2	-1.	101300 2	1.00000					CM515612
5077-	CM515612	101301	2 1.00000	101302	2 1.00000					CM515622
5078-	CM515622	101303	2 1.00000							
5079-	MPC 1	5156 3	-1.	101300 3	.0					CM515613
5080-	CM515613	101301	3 0.0	101302	3 0.0					CM515623
5081-	CM515623	101303	3 0.0							
5082-	MPC 1	5156 4	-1.	101300 4	.0					CM515614
5083-	CM515614	101301	4 0.0	101302	4 0.0					CM515624
5084-	CM515624	101303	4 0.0							
5085-	MPC 1	5156 5	-1.	101300 5	.0					CM515615
5086-	CM515615	101301	5 0.0	101302	5 0.0					CM515625
5087-	CM515625	101303	5 0.0							
5088-	MPC 1	5156 6	-1.	101300 6	1.00000					CM515616
5089-	CM515616	101301	6 1.00000	101302	6 1.00000					CM515626
5090-	CM515626	101303	6 1.00000							
5091-	MPC 1	5157 1	-1.	101300 1	1.00000					CM515711
5092-	CM515711	101301	1 0.92388	101302	1 0.70711					CM515721
5093-	CM515721	101303	1 0.38268							
5094-	MPC 1	5157 2	-1.	101300 2	1.00000					CM515712
5095-	CM515712	101301	2 0.92388	101302	2 0.70711					CM515722
5096-	CM515722	101303	2 0.18268							
5097-	MPC 1	5157 3	-1.	101300 3	.0					CM515713
5098-	CM515713	101301	3 0.38268	101302	3 0.70711					CM515723
5099-	CM515723	101303	3 0.92388							
5100-	MPC 1	5157 4	-1.	101300 4	.0					CM515714

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5101-	1	2	3	4	5	6	7	8	9	10
5102-	1	2	3	4	5	6	7	8	9	10
5103-	1	2	3	4	5	6	7	8	9	10
5104-	1	2	3	4	5	6	7	8	9	10
5105-	1	2	3	4	5	6	7	8	9	10
5106-	1	2	3	4	5	6	7	8	9	10
5107-	1	2	3	4	5	6	7	8	9	10
5108-	1	2	3	4	5	6	7	8	9	10
5109-	1	2	3	4	5	6	7	8	9	10
5110-	1	2	3	4	5	6	7	8	9	10
5111-	1	2	3	4	5	6	7	8	9	10
5112-	1	2	3	4	5	6	7	8	9	10
5113-	1	2	3	4	5	6	7	8	9	10
5114-	1	2	3	4	5	6	7	8	9	10
5115-	1	2	3	4	5	6	7	8	9	10
5116-	1	2	3	4	5	6	7	8	9	10
5117-	1	2	3	4	5	6	7	8	9	10
5118-	1	2	3	4	5	6	7	8	9	10
5119-	1	2	3	4	5	6	7	8	9	10
5120-	1	2	3	4	5	6	7	8	9	10
5121-	1	2	3	4	5	6	7	8	9	10
5122-	1	2	3	4	5	6	7	8	9	10
5123-	1	2	3	4	5	6	7	8	9	10
5124-	1	2	3	4	5	6	7	8	9	10
5125-	1	2	3	4	5	6	7	8	9	10
5126-	1	2	3	4	5	6	7	8	9	10
5127-	1	2	3	4	5	6	7	8	9	10
5128-	1	2	3	4	5	6	7	8	9	10
5129-	1	2	3	4	5	6	7	8	9	10
5130-	1	2	3	4	5	6	7	8	9	10
5131-	1	2	3	4	5	6	7	8	9	10
5132-	1	2	3	4	5	6	7	8	9	10
5133-	1	2	3	4	5	6	7	8	9	10
5134-	1	2	3	4	5	6	7	8	9	10
5135-	1	2	3	4	5	6	7	8	9	10
5136-	1	2	3	4	5	6	7	8	9	10
5137-	1	2	3	4	5	6	7	8	9	10
5138-	1	2	3	4	5	6	7	8	9	10
5139-	1	2	3	4	5	6	7	8	9	10
5140-	1	2	3	4	5	6	7	8	9	10
5141-	1	2	3	4	5	6	7	8	9	10
5142-	1	2	3	4	5	6	7	8	9	10
5143-	1	2	3	4	5	6	7	8	9	10
5144-	1	2	3	4	5	6	7	8	9	10
5145-	1	2	3	4	5	6	7	8	9	10
5146-	1	2	3	4	5	6	7	8	9	10
5147-	1	2	3	4	5	6	7	8	9	10
5148-	1	2	3	4	5	6	7	8	9	10
5149-	1	2	3	4	5	6	7	8	9	10
5150-	1	2	3	4	5	6	7	8	9	10

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
5151-	1	1	516C	3	-1.	101300	3	.0		24516013
5152-			101301		3 1.00000	101302		3 0.00000		24516023
5153-			101303		3-1.00000					
5154-	1	1	516C	4	-1.	101300	4	.0		24516014
5155-			101301		4 1.00000	101302		4 0.00000		24516024
5156-			101303		4-1.00000					
5157-	1	1	516C	5	-1.	101300	5	.0		24516015
5158-			101301		5 1.00000	101302		5 0.00000		24516025
5159-			101303		5-1.00000					
5160-	1	1	516C	6	-1.	101300	6	1.00000		24516016
5161-			101301		6 0.00000	101302		6-1.00000		24516026
5162-			101303		6-0.00000					
5163-	1	1	5161	1	-1.	101300	1	1.00000		24516111
5164-			101301		1-0.38268	101302		1-0.70711		24516121
5165-			101303		1 0.92389					
5166-	1	1	5161	2	-1.	101300	2	1.00000		24516112
5167-			101301		2-0.38268	101302		2-0.70711		24516122
5168-			101303		2 0.92389					
5169-	1	1	5161	3	-1.	101300	3	.0		24516113
5170-			101301		3 0.92389	101302		3-0.70711		24516123
5171-			101303		3-0.38269					
5172-	1	1	5161	4	-1.	101300	4	.0		24516114
5173-			101301		4 0.92389	101302		4-0.70711		24516124
5174-			101303		4-0.38269					
5175-	1	1	5161	5	-1.	101300	5	.0		24516115
5176-			101301		5 0.92389	101302		5-0.70711		24516125
5177-			101303		5-0.38269					
5178-	1	1	5161	6	-1.	101300	6	1.00000		24516116
5179-			101301		6-0.38268	101302		6-0.70711		24516126
5180-			101303		6 0.92389					
5181-	1	1	5162	1	-1.	101300	1	1.00000		24516211
5182-			101301		1-0.70711	101302		1-0.00000		24516221
5183-			101303		1 0.70711					
5184-	1	1	5162	2	-1.	101300	2	1.00000		24516212
5185-			101301		2-0.70711	101302		2-0.00000		24516222
5186-			101303		2 0.70711					
5187-	1	1	5162	3	-1.	101300	3	.0		24516213
5188-			101301		3 0.70711	101302		3-1.00000		24516223
5189-			101303		3 0.70710					
5190-	1	1	5162	4	-1.	101300	4	.0		24516214
5191-			101301		4 0.70711	101302		4-1.00000		24516224
5192-			101303		4 0.70710					
5193-	1	1	5162	5	-1.	101300	5	.0		24516215
5194-			101301		5 0.70711	101302		5-1.00000		24516225
5195-			101303		5 0.70710					
5196-	1	1	5162	6	-1.	101300	6	1.00000		24516216
5197-			101301		6-0.70711	101302		6-0.00000		24516226
5198-			101303		6 0.70711					
5199-	1	1	5162		-1.	101300	1	1.00000		24516311
5200-			101301		1-0.92389	101302		1 0.70711		24516321

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5201-	1	1	101303	1-0.38268						
5202-	MPG	5163	2	101300	2	1.00000				EMS16312
5203-	EMS16312	101301		2-0.92388	101302	2	0.70711			EMS16322
5204-	EMS16322	101303		2-0.38268						
5205-	MPG	5163	3	-1.	101300	3	.0			EMS16313
5206-	EMS16313	101301		3 0.38268	101302	3-0.70711				EMS16323
5207-	EMS16323	101303		3 0.92388						
5208-	MPG	5163	4	-1.	101300	4	.0			EMS16314
5209-	EMS16314	101301		4 0.38268	101302	4-0.70711				EMS16324
5210-	EMS16324	101303		4 0.92388						
5211-	MPG	5163	5	-1.	101300	5	.0			EMS16315
5212-	EMS16315	101301		5 0.38268	101302	5-0.70711				EMS16325
5213-	EMS16325	101303		5 0.92388						
5214-	MPG	5163	6	-1.	101300	6	1.00000			EMS16316
5215-	EMS16316	101301		6-0.92388	101302	6 0.70711				EMS16326
5216-	EMS16326	101303		6-0.38268						
5217-	MPG	5164	1	-1.	101300	1	1.00000			EMS16411
5218-	EMS16411	101301		1-1.00000	101302	1 1.00000				EMS16421
5219-	EMS16421	101303		1-1.00000						
5220-	MPG	5164	2	-1.	101300	2	1.00000			EMS16412
5221-	EMS16412	101301		2-1.00000	101302	2 1.00000				EMS16422
5222-	EMS16422	101303		2-1.00000						
5223-	MPG	5164	3	-1.	101300	3	.0			EMS16413
5224-	EMS16413	101301		3 0.00000	101302	3-0.00000				EMS16423
5225-	EMS16423	101303		3 0.00000						
5226-	MPG	5164	4	-1.	101300	4	.0			EMS16414
5227-	EMS16414	101301		4 0.00000	101302	4-0.00000				EMS16424
5228-	EMS16424	101303		4 0.00000						
5229-	MPG	5164	5	-1.	101300	5	.0			EMS16415
5230-	EMS16415	101301		5 0.00000	101302	5-0.00000				EMS16425
5231-	EMS16425	101303		5 0.00000						
5232-	MPG	5164	6	-1.	101300	6	1.00000			EMS16416
5233-	EMS16416	101301		6-1.00000	101302	6 1.00000				EMS16426
5234-	EMS16426	101303		6-1.00000						
5235-	MPG	5165	1	-1.	101400	1	1.00000			EMS16911
5236-	EMS16911	101401		1 1.00000	101402	1 1.00000				EMS16921
5237-	EMS16921	101403		1 1.00000						
5238-	MPG	5165	2	-1.	101400	2	1.00000			EMS16912
5239-	EMS16912	101401		2 1.00000	101402	2 1.00000				EMS16922
5240-	EMS16922	101403		2 1.00000						
5241-	MPG	5165	3	-1.	101400	3	.0			EMS16913
5242-	EMS16913	101401		3 0.0	101402	3 0.0				EMS16923
5243-	EMS16923	101403		3 0.0						
5244-	MPG	5165	4	-1.	101400	4	.0			EMS16914
5245-	EMS16914	101401		4 0.0	101402	4 0.0				EMS16924
5246-	EMS16924	101403		4 0.0						
5247-	MPG	5165	5	-1.	101400	5	.0			EMS16915
5248-	EMS16915	101401		5 0.0	101402	5 0.0				EMS16925
5249-	EMS16925	101403		5 0.0						
5250-	MPG	5165	6	-1.	101400	6	1.00000			EMS16916

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5251-	1	101401	101401	6	1.00000	101402	6	1.00000	9	10
5252-	1	101403	101403	6	1.00000					10
5253-	1	5170	1	-1.	101400	1	1.00000			10
5254-	1	101401	101401	1	0.92388	101402	1	0.70711		10
5255-	1	101403	101403	1	0.38268					10
5256-	1	5170	2	-1.	101400	2	1.00000			10
5257-	1	101401	101401	2	0.92388	101402	2	0.70711		10
5258-	1	101403	101403	2	0.38268					10
5259-	1	5170	3	-1.	101400	3	0			10
5260-	1	101401	101401	3	0.38268	101402	3	0.70711		10
5261-	1	101403	101403	3	0.92388					10
5262-	1	5170	4	-1.	101400	4	0			10
5263-	1	101401	101401	4	0.38268	101402	4	0.70711		10
5264-	1	101403	101403	4	0.92388					10
5265-	1	5170	5	-1.	101400	5	0			10
5266-	1	101401	101401	5	0.38268	101402	5	0.70711		10
5267-	1	101403	101403	5	0.92388					10
5268-	1	5170	6	-1.	101400	6	1.00000			10
5269-	1	101401	101401	6	0.92388	101402	6	0.70711		10
5270-	1	101403	101403	6	0.38268					10
5271-	1	5171	1	-1.	101400	1	1.00000			10
5272-	1	101401	101401	1	0.70711	101402	1	0.00000		10
5273-	1	101403	101403	1	0.70711					10
5274-	1	5171	2	-1.	101400	2	1.00000			10
5275-	1	101401	101401	2	0.70711	101402	2	0.00000		10
5276-	1	101403	101403	2	0.70711					10
5277-	1	5171	3	-1.	101400	3	0			10
5278-	1	101401	101401	3	0.70711	101402	3	1.00000		10
5279-	1	101403	101403	3	0.70711					10
5280-	1	5171	4	-1.	101400	4	0			10
5281-	1	101401	101401	4	0.70711	101402	4	1.00000		10
5282-	1	101403	101403	4	0.70711					10
5283-	1	5171	5	-1.	101400	5	0			10
5284-	1	101401	101401	5	0.70711	101402	5	1.00000		10
5285-	1	101403	101403	5	0.70711					10
5286-	1	5171	6	-1.	101400	6	1.00000			10
5287-	1	101401	101401	6	0.70711	101402	6	0.00000		10
5288-	1	101403	101403	6	0.70711					10
5289-	1	5172	1	-1.	101400	1	1.00000			10
5290-	1	101401	101401	1	0.39268	101402	1	0.70711		10
5291-	1	101403	101403	1	0.92388					10
5292-	1	5172	2	-1.	101400	2	1.00000			10
5293-	1	101401	101401	2	0.38268	101402	2	0.70711		10
5294-	1	101403	101403	2	0.92388					10
5295-	1	5172	3	-1.	101400	3	0			10
5296-	1	101401	101401	3	0.92388	101402	3	0.70711		10
5297-	1	101403	101403	3	0.38268					10
5298-	1	5172	4	-1.	101400	4	0			10
5299-	1	101401	101401	4	0.92388	101402	4	0.70711		10
5300-	1	101403	101403	4	0.38268					10

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5301-	MPC	1	5172	5	-1.	101400	5	.0		EMS17215
5302-	EMS17215		101401		5 0.92388	101402		5 0.70711		EMS17225
5303-	EMS17225		101403		5-0.38268					
5304-	MPC	1	5172	6	-1.	101400	6	1.00000		EMS17216
5305-	EMS17216		101401		6 0.38268	101402		6-0.70711		EMS17226
5306-	EMS17226		101403		6-0.92388					
5307-	MPC	1	5173	1	-1.	101400	1	1.00000		EMS17311
5308-	EMS17311		101401		1 0.00000	101402		1-1.00000		EMS17321
5309-	EMS17321		101403		1-0.00000					
5310-	MPC	1	5173	2	-1.	101400	2	1.00000		EMS17312
5311-	EMS17312		101401		2 0.00000	101402		2-1.00000		EMS17322
5312-	EMS17322		101403		2-0.00000					
5313-	MPC	1	5173	3	-1.	101400	3	.0		EMS17313
5314-	EMS17313		101401		3 1.00000	101402		3 0.00000		EMS17323
5315-	EMS17323		101403		3-1.00000					
5316-	MPC	1	5173	4	-1.	101400	4	.0		EMS17314
5317-	EMS17314		101401		4 1.00000	101402		4 0.00000		EMS17324
5318-	EMS17324		101403		4-1.00000					
5319-	MPC	1	5173	5	-1.	101400	5	.0		EMS17315
5320-	EMS17315		101401		5 1.00000	101402		5 0.00000		EMS17325
5321-	EMS17325		101403		5-1.00000					
5322-	MPC	1	5173	6	-1.	101400	6	1.00000		EMS17316
5323-	EMS17316		101401		6 0.00000	101402		6-1.00000		EMS17326
5324-	EMS17326		101403		6-0.00000					
5325-	MPC	1	5174	1	-1.	101400	1	1.00000		EMS17411
5326-	EMS17411		101401		1-0.38268	101402		1-0.70711		EMS17421
5327-	EMS17421		101403		1 0.92388					
5328-	MPC	1	5174	2	-1.	101400	2	1.00000		EMS17412
5329-	EMS17412		101401		2-0.38268	101402		2-0.70711		EMS17422
5330-	EMS17422		101403		2 0.92388					
5331-	MPC	1	5174	3	-1.	101400	3	.0		EMS17413
5332-	EMS17413		101401		3 0.92388	101402		3-0.70711		EMS17423
5333-	EMS17423		101403		3-0.18269					
5334-	MPC	1	5174	4	-1.	101400	4	.0		EMS17414
5335-	EMS17414		101401		4 0.92388	101402		4-0.70711		EMS17424
5336-	EMS17424		101403		4-0.38269					
5337-	MPC	1	5174	5	-1.	101400	5	.0		EMS17415
5338-	EMS17415		101401		5 0.92388	101402		5-0.70711		EMS17425
5339-	EMS17425		101403		5-0.38269					
5340-	MPC	1	5174	6	-1.	101400	6	1.00000		EMS17416
5341-	EMS17416		101401		6-0.38268	101402		6-0.70711		EMS17426
5342-	EMS17426		101403		6 0.92388					
5343-	MPC	1	5175	1	-1.	101400	1	1.00000		EMS17511
5344-	EMS17511		101401		1-0.70711	101402		1-0.00000		EMS17521
5345-	EMS17521		101403		1 0.70711					
5346-	MPC	1	5175	2	-1.	101400	2	1.00000		EMS17512
5347-	EMS17512		101401		2-0.70711	101402		2-0.00000		EMS17522
5348-	EMS17522		101403		2 0.70711					
5349-	MPC	1	5175	3	-1.	101400	3	.0		EMS17513
5350-	EMS17513		101401		3 0.70711	101402		3-1.00000		EMS17523

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5351-	1	2	3	4	5	6	7	8	9	10
5351-	1	2	3	4	5	6	7	8	9	10
5352-	1	2	3	4	5	6	7	8	9	10
5353-	1	2	3	4	5	6	7	8	9	10
5354-	1	2	3	4	5	6	7	8	9	10
5355-	1	2	3	4	5	6	7	8	9	10
5356-	1	2	3	4	5	6	7	8	9	10
5357-	1	2	3	4	5	6	7	8	9	10
5358-	1	2	3	4	5	6	7	8	9	10
5359-	1	2	3	4	5	6	7	8	9	10
5360-	1	2	3	4	5	6	7	8	9	10
5361-	1	2	3	4	5	6	7	8	9	10
5362-	1	2	3	4	5	6	7	8	9	10
5363-	1	2	3	4	5	6	7	8	9	10
5364-	1	2	3	4	5	6	7	8	9	10
5365-	1	2	3	4	5	6	7	8	9	10
5366-	1	2	3	4	5	6	7	8	9	10
5367-	1	2	3	4	5	6	7	8	9	10
5368-	1	2	3	4	5	6	7	8	9	10
5369-	1	2	3	4	5	6	7	8	9	10
5370-	1	2	3	4	5	6	7	8	9	10
5371-	1	2	3	4	5	6	7	8	9	10
5372-	1	2	3	4	5	6	7	8	9	10
5373-	1	2	3	4	5	6	7	8	9	10
5374-	1	2	3	4	5	6	7	8	9	10
5375-	1	2	3	4	5	6	7	8	9	10
5376-	1	2	3	4	5	6	7	8	9	10
5377-	1	2	3	4	5	6	7	8	9	10
5378-	1	2	3	4	5	6	7	8	9	10
5379-	1	2	3	4	5	6	7	8	9	10
5380-	1	2	3	4	5	6	7	8	9	10
5381-	1	2	3	4	5	6	7	8	9	10
5382-	1	2	3	4	5	6	7	8	9	10
5383-	1	2	3	4	5	6	7	8	9	10
5384-	1	2	3	4	5	6	7	8	9	10
5385-	1	2	3	4	5	6	7	8	9	10
5386-	1	2	3	4	5	6	7	8	9	10
5387-	1	2	3	4	5	6	7	8	9	10
5388-	1	2	3	4	5	6	7	8	9	10
5389-	1	2	3	4	5	6	7	8	9	10
5390-	1	2	3	4	5	6	7	8	9	10
5391-	1	2	3	4	5	6	7	8	9	10
5392-	1	2	3	4	5	6	7	8	9	10
5393-	1	2	3	4	5	6	7	8	9	10
5394-	1	2	3	4	5	6	7	8	9	10
5395-	1	2	3	4	5	6	7	8	9	10
5396-	1	2	3	4	5	6	7	8	9	10
5397-	1	2	3	4	5	6	7	8	9	10
5398-	1	2	3	4	5	6	7	8	9	10
5399-	1	2	3	4	5	6	7	8	9	10
5400-	1	2	3	4	5	6	7	8	9	10

SORTED BULK DATA ECHD

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5401-	1	101501	101501	2	1.00000	101502	2	1.00000	9	10
5402-	1	101501	101501	2	1.00000	101502	2	1.00000		10
5403-	1	5182	3	-1.	101500	3	0			10
5404-	1	101501	101501	3	0.0	101502	3	0.0		10
5405-	1	101501	101501	3	0.0	101502	3	0.0		10
5406-	1	5182	4	-1.	101500	4	0			10
5407-	1	101501	101501	4	0.0	101502	4	0.0		10
5408-	1	101501	101501	4	0.0	101502	4	0.0		10
5409-	1	5182	5	-1.	101500	5	0			10
5410-	1	101501	101501	5	0.0	101502	5	0.0		10
5411-	1	101501	101501	5	0.0	101502	5	0.0		10
5412-	1	5182	6	-1.	101500	6	1.00000	1.00000		10
5413-	1	101501	101501	6	1.00000	101502	6	1.00000		10
5414-	1	101501	101501	6	1.00000	101502	6	1.00000		10
5415-	1	5183	1	-1.	101500	1	1.00000	1.00000		10
5416-	1	101501	101501	1	0.92388	101502	1	0.70711		10
5417-	1	101501	101501	1	0.38268	101502	1	0.70711		10
5418-	1	5182	2	-1.	101500	2	1.00000	1.00000		10
5419-	1	101501	101501	2	0.92388	101502	2	0.70711		10
5420-	1	101501	101501	2	0.38268	101502	2	0.70711		10
5421-	1	5182	3	-1.	101500	3	0	0		10
5422-	1	101501	101501	3	0.38268	101502	3	0.70711		10
5423-	1	101501	101501	3	0.92388	101502	3	0.70711		10
5424-	1	5182	4	-1.	101500	4	0	0		10
5425-	1	101501	101501	4	0.38268	101502	4	0.70711		10
5426-	1	101501	101501	4	0.92388	101502	4	0.70711		10
5427-	1	5182	5	-1.	101500	5	0	0		10
5428-	1	101501	101501	5	0.38268	101502	5	0.70711		10
5429-	1	101501	101501	5	0.92388	101502	5	0.70711		10
5430-	1	5182	6	-1.	101500	6	1.00000	1.00000		10
5431-	1	101501	101501	6	0.92388	101502	6	0.70711		10
5432-	1	101501	101501	6	0.38268	101502	6	0.70711		10
5433-	1	5182	1	-1.	101500	1	1.00000	1.00000		10
5434-	1	101501	101501	1	0.70711	101502	1	0.00000		10
5435-	1	101501	101501	1	0.70711	101502	1	0.00000		10
5436-	1	5182	2	-1.	101500	2	1.00000	1.00000		10
5437-	1	101501	101501	2	0.70711	101502	2	0.00000		10
5438-	1	101501	101501	2	0.70711	101502	2	0.00000		10
5439-	1	5182	3	-1.	101500	3	0	0		10
5440-	1	101501	101501	3	0.70711	101502	3	1.00000		10
5441-	1	101501	101501	3	0.70711	101502	3	1.00000		10
5442-	1	5182	4	-1.	101500	4	0	0		10
5443-	1	101501	101501	4	0.70711	101502	4	1.00000		10
5444-	1	101501	101501	4	0.70711	101502	4	1.00000		10
5445-	1	5182	5	-1.	101500	5	0	0		10
5446-	1	101501	101501	5	0.70711	101502	5	1.00000		10
5447-	1	101501	101501	5	0.70711	101502	5	1.00000		10
5448-	1	5182	6	-1.	101500	6	1.00000	1.00000		10
5449-	1	101501	101501	6	0.70711	101502	6	0.00000		10
5450-	1	101501	101501	6	0.70711	101502	6	0.00000		10

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S O R T E D B U L K D A T A E C M O										
1	2	3	4	5	6	7	8	9	10	
MP	1	5185	1	-1.	101500	1	1.00000			24518511
24518511	101501	101501	101501	1 0.38268	101502		1-0.70711			24518521
24518521	101503	101503	101503	1-0.92388						
MP	2	5186	2	-1.	101500	2	1.00000			24518512
24518512	101501	101501	101501	2 0.38268	101502		2-0.70711			24518522
24518522	101503	101503	101503	2-0.92388						
MP	3	5188	3	-1.	101500	3	.0			24518513
24518513	101501	101501	101501	3 0.92388	101502		3 0.70711			24518523
24518523	101503	101503	101503	3-0.38268						
MP	4	5189	4	-1.	101500	4	.0			24518514
24518514	101501	101501	101501	4 0.92388	101502		4 0.70711			24518524
24518524	101503	101503	101503	4-0.38268						
MP	5	5189	5	-1.	101500	5	.0			24518515
24518515	101501	101501	101501	5 0.92388	101502		5 0.70711			24518525
24518525	101503	101503	101503	5-0.38268						
MP	6	5189	6	-1.	101500	6	1.00000			24518516
24518516	101501	101501	101501	6 0.38268	101502		6-0.70711			24518526
24518526	101503	101503	101503	6-0.92388						
MP	1	5186	1	-1.	101500	1	1.00000			24518611
24518611	101501	101501	101501	1 0.00000	101502		1-1.00000			24518621
24518621	101503	101503	101503	1-0.00000						
MP	2	5186	2	-1.	101500	2	1.00000			24518612
24518612	101501	101501	101501	2 0.00000	101502		2-1.00000			24518622
24518622	101503	101503	101503	2-0.00000						
MP	3	5186	3	-1.	101500	3	.0			24518613
24518613	101501	101501	101501	3 1.00000	101502		3 0.00000			24518623
24518623	101503	101503	101503	3-1.00000						
MP	4	5186	4	-1.	101500	4	.0			24518614
24518614	101501	101501	101501	4 1.00000	101502		4 0.00000			24518624
24518624	101503	101503	101503	4-1.00000						
MP	5	5186	5	-1.	101500	5	.0			24518615
24518615	101501	101501	101501	5 1.00000	101502		5 0.00000			24518625
24518625	101503	101503	101503	5-1.00000						
MP	6	5186	6	-1.	101500	6	1.00000			24518616
24518616	101501	101501	101501	6 0.00000	101502		6-1.00000			24518626
24518626	101503	101503	101503	6-0.00000						
MP	1	5187	1	-1.	101500	1	1.00000			24518711
24518711	101501	101501	101501	1-0.38268	101502		1-0.70711			24518721
24518721	101503	101503	101503	1 0.92388						
MP	2	5187	2	-1.	101500	2	1.00000			24518712
24518712	101501	101501	101501	2-0.38268	101502		2-0.70711			24518722
24518722	101503	101503	101503	2 0.92388						
MP	3	5187	3	-1.	101500	3	.0			24518713
24518713	101501	101501	101501	3 0.92388	101502		3-0.70711			24518723
24518723	101503	101503	101503	3-0.38268						
MP	4	5187	4	-1.	101500	4	.0			24518714
24518714	101501	101501	101501	4 0.92388	101502		4-0.70711			24518724
24518724	101503	101503	101503	4-0.38268						
MP	5	5187	5	-1.	101500	5	.0			24518715
24518715	101501	101501	101501	5 0.92388	101502		5-0.70711			24518725

ORIGINAL PAGE IS
OF POOR QUALITY

Volume II

SORTED BULK DATA ECHO

CA9D	1	2	3	4	5	6	7	8	9	10
5501-	CM518725	1	101503	5-0.38269	-1.	101500	6	1.00000	CM518716	
5502-	MPC	1	5187							
5503-	CM518716	1	101501	6-0.38268	101502			6-C.70711	CM518726	
5504-	CM518726	1	101503	6 0.92388						
5505-	MPC	1	5188	-1.	101500	1		1.00000	CM518811	
5506-	CM518811	1	101501	1-0.70711	101502			1-0.00000	CM518821	
5507-	CM518821	1	101503	1 0.70711						
5508-	MPC	1	5188	-1.	101500	2		1.00000	CM518812	
5509-	CM518812	1	101501	2-0.70711	101502			2-0.00000	CM518822	
5510-	CM518822	1	101503	2 0.70711						
5511-	MPC	1	5188	-1.	101500	3		.0	CM518813	
5512-	CM518813	1	101501	3 0.70711	101502			3-1.00000	CM518823	
5513-	CM518823	1	101503	3 0.70710						
5514-	MPC	1	5188	-1.	101500	4		.0	CM518814	
5515-	CM518814	1	101501	4 0.70711	101502			4-1.00000	CM518824	
5516-	CM518824	1	101503	4 0.70710						
5517-	MPC	1	5188	-1.	101500	5		.0	CM518815	
5518-	CM518815	1	101501	5 0.70711	101502			5-1.00000	CM518825	
5519-	CM518825	1	101503	5 0.70710						
5520-	MPC	1	5188	-1.	101500	6		1.00000	CM518816	
5521-	CM518816	1	101501	6-0.70711	101502			6-0.00000	CM518826	
5522-	CM518826	1	101503	6 0.70711						
5523-	MPC	1	5189	-1.	101500	1		1.00000	CM518911	
5524-	CM518911	1	101501	1-0.92388	101502			1 0.70711	CM518921	
5525-	CM518921	1	101503	1-0.38268						
5526-	MPC	1	5189	-1.	101500	2		1.00000	CM518912	
5527-	CM518912	1	101501	2-0.92388	101502			2 0.70711	CM518922	
5528-	CM518922	1	101503	2-0.38268						
5529-	MPC	1	5189	-1.	101500	3		.0	CM518913	
5530-	CM518913	1	101501	3 0.38268	101502			3-0.70711	CM518923	
5531-	CM518923	1	101503	3 0.92388						
5532-	MPC	1	5189	-1.	101500	4		.0	CM518914	
5533-	CM518914	1	101501	4 0.38268	101502			4-0.70711	CM518924	
5534-	CM518924	1	101503	4 0.92388						
5535-	MPC	1	5189	-1.	101500	5		.0	CM518915	
5536-	CM518915	1	101501	5 0.38268	101502			5-0.70711	CM518925	
5537-	CM518925	1	101503	5 0.92388						
5538-	MPC	1	5189	-1.	101500	6		1.00000	CM518916	
5539-	CM518916	1	101501	6-0.92388	101502			6 0.70711	CM518926	
5540-	CM518926	1	101503	6-0.38268						
5541-	MPC	1	5190	-1.	101500	1		1.00000	CM519011	
5542-	CM519011	1	101501	1-1.00000	101502			1 1.00000	CM519021	
5543-	CM519021	1	101503	1-1.00000						
5544-	MPC	1	5190	-1.	101500	2		1.00000	CM519012	
5545-	CM519012	1	101501	2-1.00000	101502			2 1.00000	CM519022	
5546-	CM519022	1	101503	2-1.00000						
5547-	MPC	1	5190	-1.	101500	3		.0	CM519013	
5548-	CM519013	1	101501	3 0.00000	101502			3-0.00000	CM519023	
5549-	CM519023	1	101503	3 0.00000						
5550-	MPC	1	5190	-1.	101500	4		.0	CM519014	

EXTERNAL K W. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASRAN 5/13/72

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
5551-	CM519014	101501	4	0.0000	101502	4-0.00000	CM519024			
5552-	CM519024	101503	4	0.0000	101502	4-0.00000	CM519015			
5553-	CM519015	101501	5	-1.	101500	5	CM519025			
5554-	CM519025	101503	5	0.0000	101502	5-0.00000	CM519016			
5555-	CM519016	101501	6	-1.	101500	6	CM519026			
5556-	CM519026	101503	6	-1.00000	101502	6 1.00000	CM519011			
5557-	CM519011	101501	1	-1.	101600	1	CM519021			
5558-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5559-	CM519012	101501	2	-1.	101600	2	CM519022			
5560-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			
5561-	CM519013	101501	3	-1.	101600	3	CM519023			
5562-	CM519023	101503	3	0.0	101602	3 0.0	CM519014			
5563-	CM519014	101501	4	-1.	101600	4	CM519024			
5564-	CM519024	101503	4	0.0	101602	4 0.0	CM519015			
5565-	CM519015	101501	5	-1.	101600	5	CM519025			
5566-	CM519025	101503	5	0.0	101602	5 0.0	CM519016			
5567-	CM519016	101501	6	-1.	101600	6	CM519026			
5568-	CM519026	101503	6	1.00000	101602	6 1.00000	CM519011			
5569-	CM519011	101501	1	-1.	101600	1	CM519021			
5570-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5571-	CM519012	101501	2	-1.	101600	2	CM519022			
5572-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			
5573-	CM519013	101501	3	-1.	101600	3	CM519023			
5574-	CM519023	101503	3	0.0	101602	3 0.0	CM519014			
5575-	CM519014	101501	4	-1.	101600	4	CM519024			
5576-	CM519024	101503	4	0.0	101602	4 0.0	CM519015			
5577-	CM519015	101501	5	-1.	101600	5	CM519025			
5578-	CM519025	101503	5	0.0	101602	5 0.0	CM519016			
5579-	CM519016	101501	6	-1.	101600	6	CM519026			
5580-	CM519026	101503	6	1.00000	101602	6 1.00000	CM519011			
5581-	CM519011	101501	1	-1.	101600	1	CM519021			
5582-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5583-	CM519012	101501	2	-1.	101600	2	CM519022			
5584-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			
5585-	CM519013	101501	3	-1.	101600	3	CM519023			
5586-	CM519023	101503	3	0.0	101602	3 0.0	CM519014			
5587-	CM519014	101501	4	-1.	101600	4	CM519024			
5588-	CM519024	101503	4	0.0	101602	4 0.0	CM519015			
5589-	CM519015	101501	5	-1.	101600	5	CM519025			
5590-	CM519025	101503	5	0.0	101602	5 0.0	CM519016			
5591-	CM519016	101501	6	-1.	101600	6	CM519026			
5592-	CM519026	101503	6	1.00000	101602	6 1.00000	CM519011			
5593-	CM519011	101501	1	-1.	101600	1	CM519021			
5594-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5595-	CM519012	101501	2	-1.	101600	2	CM519022			
5596-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			
5597-	CM519013	101501	3	-1.	101600	3	CM519023			
5598-	CM519023	101503	3	0.0	101602	3 0.0	CM519014			
5599-	CM519014	101501	4	-1.	101600	4	CM519024			
5600-	CM519024	101503	4	0.0	101602	4 0.0	CM519015			
5601-	CM519015	101501	5	-1.	101600	5	CM519025			
5602-	CM519025	101503	5	0.0	101602	5 0.0	CM519016			
5603-	CM519016	101501	6	-1.	101600	6	CM519026			
5604-	CM519026	101503	6	1.00000	101602	6 1.00000	CM519011			
5605-	CM519011	101501	1	-1.	101600	1	CM519021			
5606-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5607-	CM519012	101501	2	-1.	101600	2	CM519022			
5608-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			
5609-	CM519013	101501	3	-1.	101600	3	CM519023			
5610-	CM519023	101503	3	0.0	101602	3 0.0	CM519014			
5611-	CM519014	101501	4	-1.	101600	4	CM519024			
5612-	CM519024	101503	4	0.0	101602	4 0.0	CM519015			
5613-	CM519015	101501	5	-1.	101600	5	CM519025			
5614-	CM519025	101503	5	0.0	101602	5 0.0	CM519016			
5615-	CM519016	101501	6	-1.	101600	6	CM519026			
5616-	CM519026	101503	6	1.00000	101602	6 1.00000	CM519011			
5617-	CM519011	101501	1	-1.	101600	1	CM519021			
5618-	CM519021	101503	1	1.00000	101602	1 1.00000	CM519012			
5619-	CM519012	101501	2	-1.	101600	2	CM519022			
5620-	CM519022	101503	2	1.00000	101602	2 1.00000	CM519013			

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5631-	1	5197	3	-1.	101600	3	.0			24519713
5632-	1	101601	101602	3	1.00000					24519723
5633-	1	5197	4	-1.	101600	4	.0			24519714
5635-	1	101601	101602	4	1.00000					24519724
5635-	1	101603	4	0.70711	101602	5	.0			24519715
5637-	1	5197	5	-1.	101600	5	.0			24519725
5639-	1	101601	101602	5	1.00000					24519716
5639-	1	101603	6	-1.	101600	6	1.00000			24519726
5641-	1	5197	6	0.70711	101602	6	0.00000			24519811
5641-	1	101601	101602	6	1.00000					24519821
5643-	1	5198	1	-1.	101600	1	1.00000			24519812
5643-	1	101603	1	0.38268	101602	1	1.00000			24519822
5645-	1	101601	101602	1	1.00000					24519813
5645-	1	101603	2	0.92388	101602	2	1.00000			24519823
5647-	1	5198	2	-1.	101600	2	1.00000			24519814
5647-	1	101601	101602	2	1.00000					24519824
5649-	1	5198	3	0.92388	101602	3	0.70711			24519815
5649-	1	101603	3	0.38268	101602	3	0.70711			24519825
5651-	1	5198	4	-1.	101600	4	.0			24519816
5651-	1	101601	101602	4	0.70711					24519826
5653-	1	5198	5	-1.	101600	5	.0			24519911
5653-	1	101601	101602	5	0.70711					24519921
5655-	1	5198	6	0.92388	101602	6	1.00000			24519912
5655-	1	101603	6	0.38268	101602	6	1.00000			24519922
5657-	1	5199	1	-1.	101600	1	1.00000			24519913
5657-	1	101601	101602	1	1.00000					24519923
5659-	1	5199	2	1.00000	101602	2	1.00000			24519914
5659-	1	101603	2	0.92388	101602	2	1.00000			24519924
5661-	1	5199	3	-1.	101600	3	.0			24519915
5661-	1	101601	101602	3	0.00000					24519925
5663-	1	5199	4	-1.	101600	4	.0			24519916
5663-	1	101601	101602	4	0.00000					24519926
5665-	1	5199	5	-1.	101600	5	0.00000			24520011
5665-	1	101601	101602	5	1.00000					24520021
5667-	1	5199	6	-1.	101600	6	1.00000			
5667-	1	101601	101602	6	0.00000					
5669-	1	5200	1	-1.	101600	1	1.00000			
5669-	1	101601	101602	1	0.70711					

UNCLASSIFIED

CARD	1	2	3	4	5	6	7	8	9	10
CM520021	1	5200	101603	1	0.92388					CM520012
MPG	1	5200	101603	-1.		101600	2	1.00000		CM520022
CM520012	1	101601	101601	2-0.38268		101602		2-0.70711		
CM520022	1	101603	101603	2	0.92388					
MPG	1	5200	101603	-1.		101600	3	.0		CM520013
CM520013	1	101601	101601	3	0.92388	101602		3-0.70711		CM520023
CM520023	1	101603	101603	3-0.38269						
MPG	1	5200	101603	-1.		101600	4	.0		CM520014
CM520014	1	101601	101601	4	0.92388	101602		4-0.70711		CM520024
CM520024	1	101603	101603	4	0.39269					
MPG	1	5200	101603	-1.		101600	5	.0		CM520015
CM520015	1	101601	101601	5	0.92388	101602		5-0.70711		CM520025
CM520025	1	101603	101603	5-0.38269						
MPG	1	5200	101603	-1.		101600	6	1.00000		CM520016
CM520016	1	101601	101601	6-0.38268		101602		6-0.70711		CM520026
CM520026	1	101603	101603	6	0.92388					
MPG	1	5201	101603	-1.		101600	1	1.00000		CM520111
CM520111	1	101601	101601	1-0.70711		101602		1-0.60000		CM520121
CM520121	1	101603	101603	1	0.70711					
MPG	1	5201	101603	-1.		101600	2	1.00000		CM520112
CM520112	1	101601	101601	2-0.70711		101602		2-0.60000		CM520122
CM520122	1	101603	101603	2	0.70711					
MPG	1	5201	101603	-1.		101600	3	.0		CM520113
CM520113	1	101601	101601	3	0.70711	101602		3-1.00000		CM520123
CM520123	1	101603	101603	3	0.70710					
MPG	1	5201	101603	-1.		101600	4	.0		CM520114
CM520114	1	101601	101601	4	0.70711	101602		4-1.00000		CM520124
CM520124	1	101603	101603	4	0.70710					
MPG	1	5201	101603	-1.		101600	5	.0		CM520115
CM520115	1	101601	101601	5	0.70711	101602		5-1.00000		CM520125
CM520125	1	101603	101603	5	0.70710					
MPG	1	5201	101603	-1.		101600	6	1.00000		CM520116
CM520116	1	101601	101601	6-0.70711		101602		6-0.00000		CM520126
CM520126	1	101603	101603	6	0.70711					
MPG	1	5202	101603	-1.		101600	1	1.00000		CM520211
CM520211	1	101601	101601	1-0.92388		101602		1	0.70711	CM520221
CM520221	1	101603	101603	1-0.38268						
MPG	1	5202	101603	-1.		101600	2	1.00000		CM520212
CM520212	1	101601	101601	2-0.92388		101602		2	0.70711	CM520222
CM520222	1	101603	101603	2-0.38268						
MPG	1	5202	101603	-1.		101600	3	.0		CM520213
CM520213	1	101601	101601	3	0.38268	101602		3-0.70711		CM520223
CM520223	1	101603	101603	3	0.92388					
MPG	1	5202	101603	-1.		101600	4	.0		CM520214
CM520214	1	101601	101601	4	0.38268	101602		4-0.70711		CM520224
CM520224	1	101603	101603	4	0.92388					
MPG	1	5202	101603	-1.		101600	5	.0		CM520215
CM520215	1	101601	101601	5	0.38268	101602		5-0.70711		CM520225
CM520225	1	101603	101603	5	0.92388					
MPG	1	5202	101603	-1.		101600	6	1.00000		CM520216

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHD

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5701-	EMEC7016	101601	101601	6-0.92388	101602	6 0.70711	6 0.70711	6 0.70711	6 0.70711	6 0.70711
5702-	EMEC7026	101603	101603	6-0.38268	101602	1 1.00000	1 1.00000	1 1.00000	1 1.00000	1 1.00000
5703-	EMEC7011	5203 1	5203 1	-1.	101600 1	1.00000	1.00000	1.00000	1.00000	1.00000
5704-	EMEC7031	101601	101601	1-1.00000	101602	1 1.00000	1 1.00000	1 1.00000	1 1.00000	1 1.00000
5705-	EMEC7032	101603	101603	1-1.00000	101602	1 1.00000	1 1.00000	1 1.00000	1 1.00000	1 1.00000
5706-	EMEC7012	5203 2	5203 2	-1.	101600 2	1.00000	1.00000	1.00000	1.00000	1.00000
5707-	EMEC7033	101601	101601	2-1.00000	101602	2 1.00000	2 1.00000	2 1.00000	2 1.00000	2 1.00000
5708-	EMEC7013	101603	101603	2-1.00000	101602	2 1.00000	2 1.00000	2 1.00000	2 1.00000	2 1.00000
5709-	EMEC7014	5203 3	5203 3	-1.	101600 3	.0	.0	.0	.0	.0
5710-	EMEC7015	101601	101601	3 0.00000	101602	3-0.00000	3-0.00000	3-0.00000	3-0.00000	3-0.00000
5711-	EMEC7016	101603	101603	3 0.00000	101602	3-0.00000	3-0.00000	3-0.00000	3-0.00000	3-0.00000
5712-	EMEC7017	5203 4	5203 4	-1.	101600 4	.0	.0	.0	.0	.0
5713-	EMEC7018	101601	101601	4 0.00000	101602	4-0.00000	4-0.00000	4-0.00000	4-0.00000	4-0.00000
5714-	EMEC7019	101603	101603	4 0.00000	101602	4-0.00000	4-0.00000	4-0.00000	4-0.00000	4-0.00000
5715-	EMEC7020	5203 5	5203 5	-1.	101600 5	.0	.0	.0	.0	.0
5716-	EMEC7021	101601	101601	5 0.00000	101602	5-0.00000	5-0.00000	5-0.00000	5-0.00000	5-0.00000
5717-	EMEC7022	101603	101603	5 0.00000	101602	5-0.00000	5-0.00000	5-0.00000	5-0.00000	5-0.00000
5718-	EMEC7023	5203 6	5203 6	-1.	101600 6	1.00000	1.00000	1.00000	1.00000	1.00000
5719-	EMEC7024	101601	101601	6-1.00000	101602	6 1.00000	6 1.00000	6 1.00000	6 1.00000	6 1.00000
5720-	EMEC7025	101603	101603	6-1.00000	101602	6 1.00000	6 1.00000	6 1.00000	6 1.00000	6 1.00000
5721-	EMEC7026	5204 1	5204 1	1.	101600 1	-.9919	-.9919	-.9919	-.9919	-.9919
5722-	EMEC7027	101600 2	101600 2	-.1269	101600 1	1.00000	1.00000	1.00000	1.00000	1.00000
5723-	EMEC7028	807C 1	807C 1	-1.	110400 1	1.00000	1.00000	1.00000	1.00000	1.00000
5724-	EMEC7029	110401	110401	1 1.00000	110402	1 1.00000	1 1.00000	1 1.00000	1 1.00000	1 1.00000
5725-	EMEC7030	110403	110403	1 1.00000	110402	1 1.00000	1 1.00000	1 1.00000	1 1.00000	1 1.00000
5726-	EMEC7031	8070 2	8070 2	-1.	110400 2	.0	.0	.0	.0	.0
5727-	EMEC7032	110401	110401	2 0.0	110402	2 0.0	2 0.0	2 0.0	2 0.0	2 0.0
5728-	EMEC7033	110403	110403	2 0.0	110402	2 0.0	2 0.0	2 0.0	2 0.0	2 0.0
5729-	EMEC7034	807C 3	807C 3	-1.	110400 3	1.00000	1.00000	1.00000	1.00000	1.00000
5730-	EMEC7035	110401	110401	3 1.00000	110402	3 1.00000	3 1.00000	3 1.00000	3 1.00000	3 1.00000
5731-	EMEC7036	110403	110403	3 1.00000	110402	3 1.00000	3 1.00000	3 1.00000	3 1.00000	3 1.00000
5732-	EMEC7037	807C 4	807C 4	-1.	110400 4	.0	.0	.0	.0	.0
5733-	EMEC7038	110401	110401	4 0.0	110402	4 0.0	4 0.0	4 0.0	4 0.0	4 0.0
5734-	EMEC7039	110403	110403	4 0.0	110402	4 0.0	4 0.0	4 0.0	4 0.0	4 0.0
5735-	EMEC7040	807C 5	807C 5	-1.	110400 5	1.00000	1.00000	1.00000	1.00000	1.00000
5736-	EMEC7041	110401	110401	5 1.00000	110402	5 1.00000	5 1.00000	5 1.00000	5 1.00000	5 1.00000
5737-	EMEC7042	110403	110403	5 1.00000	110402	5 1.00000	5 1.00000	5 1.00000	5 1.00000	5 1.00000
5738-	EMEC7043	807C 6	807C 6	-1.	110400 6	.0	.0	.0	.0	.0
5739-	EMEC7044	110401	110401	6 0.0	110402	6 0.0	6 0.0	6 0.0	6 0.0	6 0.0
5740-	EMEC7045	110403	110403	6 0.0	110402	6 0.0	6 0.0	6 0.0	6 0.0	6 0.0
5741-	EMEC7046	807C 1	807C 1	-1.	110400 1	1.00000	1.00000	1.00000	1.00000	1.00000
5742-	EMEC7047	110401	110401	1 0.92388	110402	1 0.70711	1 0.70711	1 0.70711	1 0.70711	1 0.70711
5743-	EMEC7048	110403	110403	1 0.38268	110402	1 0.70711	1 0.70711	1 0.70711	1 0.70711	1 0.70711
5744-	EMEC7049	807C 2	807C 2	-1.	110400 2	.0	.0	.0	.0	.0
5745-	EMEC7050	110401	110401	2 0.38268	110402	2 0.70711	2 0.70711	2 0.70711	2 0.70711	2 0.70711
5746-	EMEC7051	110403	110403	2 0.92388	110402	2 0.70711	2 0.70711	2 0.70711	2 0.70711	2 0.70711
5747-	EMEC7052	807C 3	807C 3	-1.	110400 3	1.00000	1.00000	1.00000	1.00000	1.00000
5748-	EMEC7053	110401	110401	3 0.92388	110402	3 0.70711	3 0.70711	3 0.70711	3 0.70711	3 0.70711
5749-	EMEC7054	110403	110403	3 0.38268	110402	3 0.70711	3 0.70711	3 0.70711	3 0.70711	3 0.70711
5750-	EMEC7055	807C 4	807C 4	-1.	110400 4	.0	.0	.0	.0	.0

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5751- GOUNT	1	2	3	4	5	6	7	8	9	10
5751- EM807114	1	2	3	4	5	6	7	8	9	10
5752- EM807124	1	2	3	4	5	6	7	8	9	10
5753- MPC	1	2	3	4	5	6	7	8	9	10
5754- EM807115	1	2	3	4	5	6	7	8	9	10
5755- EM807125	1	2	3	4	5	6	7	8	9	10
5756- MPC	1	2	3	4	5	6	7	8	9	10
5757- EM807116	1	2	3	4	5	6	7	8	9	10
5758- EM807126	1	2	3	4	5	6	7	8	9	10
5759- MPC	1	2	3	4	5	6	7	8	9	10
5760- EM807211	1	2	3	4	5	6	7	8	9	10
5761- EM807221	1	2	3	4	5	6	7	8	9	10
5762- MPC	1	2	3	4	5	6	7	8	9	10
5763- EM807212	1	2	3	4	5	6	7	8	9	10
5764- EM807222	1	2	3	4	5	6	7	8	9	10
5765- MPC	1	2	3	4	5	6	7	8	9	10
5766- EM807213	1	2	3	4	5	6	7	8	9	10
5767- EM807223	1	2	3	4	5	6	7	8	9	10
5768- MPC	1	2	3	4	5	6	7	8	9	10
5769- EM807214	1	2	3	4	5	6	7	8	9	10
5770- EM807224	1	2	3	4	5	6	7	8	9	10
5771- MPC	1	2	3	4	5	6	7	8	9	10
5772- EM807215	1	2	3	4	5	6	7	8	9	10
5773- EM807225	1	2	3	4	5	6	7	8	9	10
5774- MPC	1	2	3	4	5	6	7	8	9	10
5775- EM807216	1	2	3	4	5	6	7	8	9	10
5776- EM807226	1	2	3	4	5	6	7	8	9	10
5777- MPC	1	2	3	4	5	6	7	8	9	10
5778- EM807311	1	2	3	4	5	6	7	8	9	10
5779- EM807321	1	2	3	4	5	6	7	8	9	10
5780- MPC	1	2	3	4	5	6	7	8	9	10
5781- EM807312	1	2	3	4	5	6	7	8	9	10
5782- EM807322	1	2	3	4	5	6	7	8	9	10
5783- MPC	1	2	3	4	5	6	7	8	9	10
5784- EM807313	1	2	3	4	5	6	7	8	9	10
5785- EM807323	1	2	3	4	5	6	7	8	9	10
5786- MPC	1	2	3	4	5	6	7	8	9	10
5787- EM807314	1	2	3	4	5	6	7	8	9	10
5788- EM807324	1	2	3	4	5	6	7	8	9	10
5789- MPC	1	2	3	4	5	6	7	8	9	10
5790- EM807315	1	2	3	4	5	6	7	8	9	10
5791- EM807325	1	2	3	4	5	6	7	8	9	10
5792- MPC	1	2	3	4	5	6	7	8	9	10
5793- EM807316	1	2	3	4	5	6	7	8	9	10
5794- EM807326	1	2	3	4	5	6	7	8	9	10
5795- MPC	1	2	3	4	5	6	7	8	9	10
5796- EM807411	1	2	3	4	5	6	7	8	9	10
5797- EM807421	1	2	3	4	5	6	7	8	9	10
5798- MPC	1	2	3	4	5	6	7	8	9	10
5799- EM807412	1	2	3	4	5	6	7	8	9	10
5800- EM807422	1	2	3	4	5	6	7	8	9	10

SORTED BULK DATA ECHD

CARD	1	2	3	4	5	6	7	8	9	10
CTUNT	1	8074	3		-1.	110400	3	1.00000		CM807413
5301-	CM807413	110401	3	0.19732	110402			3-0.92213		CM807423
5302-	CM807423	110403	4	3-0.56122						CM807414
5303-	CM807414	110401	4	-1.	110400	4	0.38687			CM807424
5304-	CM807424	110403	5	4-0.82767						CM807415
5305-	CM807415	110401	5	-1.	110400	5	1.00000			CM807425
5306-	CM807425	110403	6	5-0.56122						CM807416
5307-	CM807416	110401	6	-1.	110400	6	0.38687			CM807426
5308-	CM807426	110403	1	6-0.82767						CM807511
5309-	CM807511	110401	1	-1.	110400	1	1.00000			CM807521
5310-	CM807521	110403	2	1-0.00000						CM807512
5311-	CM807512	110401	2	-1.	110400	2	0.00000			CM807522
5312-	CM807522	110403	3	2-1.00000						CM807513
5313-	CM807513	110401	3	-1.	110400	3	1.00000			CM807523
5314-	CM807523	110403	4	3-0.00000						CM807514
5315-	CM807514	110401	4	-1.	110400	4	0.00000			CM807524
5316-	CM807524	110403	5	4-1.00000						CM807515
5317-	CM807515	110401	5	-1.	110400	5	1.00000			CM807525
5318-	CM807525	110403	6	5-0.00000						CM807516
5319-	CM807516	110401	6	-1.	110400	6	0.00000			CM807526
5320-	CM807526	110403	1	6-1.00000						CM807611
5321-	CM807611	110401	1	-1.	110400	1	1.00000			CM807621
5322-	CM807621	110403	2	1-0.38268						CM807612
5323-	CM807612	110401	2	1-0.92398						CM807622
5324-	CM807622	110403	3	-1.	110400	3	2-0.70711			CM807613
5325-	CM807613	110401	3	2-0.92398						CM807623
5326-	CM807623	110403	4	-1.	110400	4	0.00000			CM807614
5327-	CM807614	110401	4	3-0.38268						CM807624
5328-	CM807624	110403	5	4-0.38269						CM807615
5329-	CM807615	110401	5	-1.	110400	5	1.00000			CM807625
5330-	CM807625	110403	6	5-0.38268						CM807616
5331-	CM807616	110401	6	-1.	110400	6	0.00000			CM807626
5332-	CM807626	110403	1	6-0.38269						CM807711
5333-	CM807711	110401	1	-1.	110400	1	1.00000			CM807721

EXTERNAL K. W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CJUNT	1	2	3	4	5	6	7	8	9	10
5851-	EMEC7721	110403	1	0.70711						EM807712
5852-	MPC	2	-1.	110400	2					EM807722
5853-	EMEC7712	110401	2	0.70711	110402			2-1.00000		
5854-	EMEC7722	110403	2	0.70710						
5855-	MPC	3	-1.	110400	3			1.00000		EM807713
5856-	EMEC7713	110401	3	0.70711	110402			3-0.00000		EM807723
5857-	EMEC7723	110403	3	0.70711						
5858-	MPC	4	-1.	110400	4			.0		EM807714
5859-	EMEC7714	110401	4	0.70711	110402			4-1.00000		EM807724
5860-	EMEC7724	110403	4	0.70710						
5861-	MPC	5	-1.	110400	5			1.00000		EM807715
5862-	EMEC7715	110401	5	0.70711	110402			5-0.00000		EM807725
5863-	EMEC7725	110403	5	0.70711						
5864-	MPC	6	-1.	110400	6			.0		EM807716
5865-	EMEC7716	110401	6	0.70711	110402			6-1.00000		EM807726
5866-	EMEC7726	110403	6	0.70710						
5867-	MPC	1	-1.	110400	1			1.00000		EM807811
5868-	EMEC7811	110401	1	0.92368	110402			1 0.70711		EM807821
5869-	EMEC7821	110403	1	0.38268						
5870-	MPC	2	-1.	110400	2			.0		EM807812
5871-	EMEC7812	110401	2	0.38268	110402			2-0.70711		EM807822
5872-	EMEC7822	110403	2	0.92368						
5873-	MPC	3	-1.	110400	3			1.00000		EM807813
5874-	EMEC7813	110401	3	0.92368	110402			3 0.70711		EM807823
5875-	EMEC7823	110403	3	0.38268						
5876-	MPC	4	-1.	110400	4			.0		EM807814
5877-	EMEC7814	110401	4	0.38268	110402			4-0.70711		EM807824
5878-	EMEC7824	110403	4	0.92368						
5879-	MPC	5	-1.	110400	5			1.00000		EM807815
5880-	EMEC7815	110401	5	0.92368	110402			5 0.70711		EM807825
5881-	EMEC7825	110403	5	0.38268						
5882-	MPC	6	-1.	110400	6			.0		EM807816
5883-	EMEC7816	110401	6	0.38268	110402			6-0.70711		EM807826
5884-	EMEC7826	110403	6	0.92368						
5885-	MPC	1	-1.	110400	1			1.00000		EM807911
5886-	EMEC7911	110401	1	1.00000	110402			1 1.00000		EM807921
5887-	EMEC7921	110403	1	1.00000						
5888-	MPC	2	-1.	110400	2			.0		EM807912
5889-	EMEC7912	110401	2	0.00000	110402			2-0.00000		EM807922
5890-	EMEC7922	110403	2	0.00000						
5891-	MPC	3	-1.	110400	3			1.00000		EM807913
5892-	EMEC7913	110401	3	1.00000	110402			3 1.00000		EM807923
5893-	EMEC7923	110403	3	1.00000						
5894-	MPC	4	-1.	110400	4			.0		EM807914
5895-	EMEC7914	110401	4	0.00000	110402			4-0.00000		EM807924
5896-	EMEC7924	110403	4	0.00000						
5897-	MPC	5	-1.	110400	5			1.00000		EM807915
5898-	EMEC7915	110401	5	1.00000	110402			5 1.00000		EM807925
5899-	EMEC7925	110403	5	1.00000						
5900-	MPC	6	-1.	110400	6			.0		EM807916

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5701-	CMC7916	110401	6 0.0000	110402	6-0.0000					CMC7926
5702-	CMC7926	110403	6 0.0000							
5703-	MPG	8110 1	-1.	110100 1	1.00000					CMC81101
5704-	CMC81101	110101	1 1.00000	110102	1 1.00000					CMC81102
5705-	CMC81102	110103	1 1.00000							
5706-	MPG	811C 2	-1.	110100 2	.0					CMC811012
5707-	CMC811012	110101	2 0.0	110102	2 0.0					CMC811022
5708-	CMC811022	110103	2 0.0							
5709-	MPG	811C 3	-1.	110100 3	1.00000					CMC811013
5710-	CMC811013	110101	3 1.00000	110102	3 1.00000					CMC811023
5711-	CMC811023	110103	3 1.00000							
5712-	MPG	8110 4	-1.	110100 4	.0					CMC811014
5713-	CMC811014	110101	4 0.0	110102	4 0.0					CMC811024
5714-	CMC811024	110103	4 0.0							
5715-	MPG	811C 5	-1.	110100 5	1.00000					CMC811015
5716-	CMC811015	110101	5 1.00000	110102	5 1.00000					CMC811025
5717-	CMC811025	110103	5 1.00000							
5718-	MPG	811C 6	-1.	110100 6	.0					CMC811016
5719-	CMC811016	110101	6 0.0	110102	6 0.0					CMC811026
5720-	CMC811026	110103	6 0.0							
5721-	MPG	811C 1	-1.	110100 1	1.00000					CMC811111
5722-	CMC811111	110101	1 0.92388	110102	1 0.70711					CMC811121
5723-	CMC811121	110103	1 0.38268							
5724-	MPG	811C 2	-1.	110100 2	.0					CMC811112
5725-	CMC811112	110101	2 0.38268	110102	2 0.70711					CMC811122
5726-	CMC811122	110103	2 0.92388							
5727-	MPG	811C 3	-1.	110100 3	1.00000					CMC811113
5728-	CMC811113	110101	3 0.92388	110102	3 0.70711					CMC811123
5729-	CMC811123	110103	3 0.38268							
5730-	MPG	811C 4	-1.	110100 4	.0					CMC811114
5731-	CMC811114	110101	4 0.38268	110102	4 0.70711					CMC811124
5732-	CMC811124	110103	4 0.92388							
5733-	MPG	811C 5	-1.	110100 5	1.00000					CMC811115
5734-	CMC811115	110101	5 0.92388	110102	5 0.70711					CMC811125
5735-	CMC811125	110103	5 0.38268							
5736-	MPG	811C 6	-1.	110100 6	.0					CMC811116
5737-	CMC811116	110101	6 0.38268	110102	6 0.70711					CMC811126
5738-	CMC811126	110103	6 0.92388							
5739-	MPG	811C 1	-1.	110100 1	1.00000					CMC811211
5740-	CMC811211	110101	1 0.70711	110102	1 0.00000					CMC811221
5741-	CMC811221	110103	1-0.70711							
5742-	MPG	811C 2	-1.	110100 2	.0					CMC811212
5743-	CMC811212	110101	2 0.70711	110.02	2 1.00000					CMC811222
5744-	CMC811222	110103	2 0.70711							
5745-	MPG	811C 3	-1.	110100 3	1.00000					CMC811213
5746-	CMC811213	110101	3 0.70711	110102	3 0.00000					CMC811223
5747-	CMC811223	110103	3-0.70711							
5748-	MPG	811C 4	-1.	110100 4	.0					CMC811214
5749-	CMC811214	110101	4 0.70711	110102	4 1.00000					CMC811224
5750-	CMC811224	110103	4 0.70711							

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INTERNAL TANK W. FLUID
HARMONIC REDUCTION

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
5951-	1	8112	5	-1.	110100	5	1.00000			10
5952-	1	110101	5	5 0.70711	110102		5 0.00000			10
5953-	1	110103	6	5 0.70711						10
5954-	1	8112	6	-1.	110100	6	.0			10
5955-	1	110101	6	6 0.70711	110102		6 1.00000			10
5956-	1	110103	6	6 0.70711						10
5957-	1	8112	1	-1.	110100	1	1.00000			10
5958-	1	110101	1	1 0.38268	110102		1 0.70711			10
5959-	1	110103	2	1 0.92388						10
5960-	1	8112	2	-1.	110100	2	.0			10
5961-	1	110101	2	2 0.92388	110102		2 0.70711			10
5962-	1	110103	3	2 0.38268						10
5963-	1	8112	3	-1.	110100	3	1.00000			10
5964-	1	110101	3	3 0.38268	110102		3 0.70711			10
5965-	1	110103	4	3 0.92388						10
5966-	1	8112	4	-1.	110100	4	.0			10
5967-	1	110101	4	4 0.92388	110102		4 0.70711			10
5968-	1	110103	5	4 0.38268						10
5969-	1	8112	5	-1.	110100	5	1.00000			10
5970-	1	110101	5	5 0.38268	110102		5 0.70711			10
5971-	1	110103	6	5 0.92388						10
5972-	1	8112	6	-1.	110100	6	.0			10
5973-	1	110101	6	6 0.92388	110102		6 0.70711			10
5974-	1	110103	1	6 0.38268						10
5975-	1	8114	1	-1.	110100	1	1.00000			10
5976-	1	110101	1	1 0.19732	110102		1 0.92213			10
5977-	1	110103	2	1 0.56122						10
5978-	1	8114	2	-1.	110100	2	.0			10
5979-	1	110101	2	2 0.98034	110102		2 0.38687			10
5980-	1	110103	3	2 0.82767						10
5981-	1	8114	3	-1.	110100	3	1.00000			10
5982-	1	110101	3	3 0.19732	110102		3 0.92213			10
5983-	1	110103	4	3 0.56122						10
5984-	1	8114	4	-1.	110100	4	.0			10
5985-	1	110101	4	4 0.98034	110102		4 0.38687			10
5986-	1	110103	5	4 0.82767						10
5987-	1	8114	5	-1.	110100	5	1.00000			10
5988-	1	110101	5	5 0.19732	110102		5 0.92213			10
5989-	1	110103	6	5 0.56122						10
5990-	1	8114	6	-1.	110100	6	.0			10
5991-	1	110101	6	6 0.98034	110102		6 0.38687			10
5992-	1	110103	1	6 0.82767						10
5993-	1	8115	1	-1.	110100	1	1.00000			10
5994-	1	110101	1	1 0.00000	110102		1 1.00000			10
5995-	1	110103	2	1 0.00000						10
5996-	1	8115	2	-1.	110100	2	.0			10
5997-	1	110101	2	2 1.00000	110102		2 0.00000			10
5998-	1	110103	3	2 1.00000						10
5999-	1	8115	3	-1.	110100	3	1.00000			10
5000-	1	110101	3	3 0.00000	110102		3 1.00000			10

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
6001- CJUVT	CM811523	1	110103	3-0.00000						
6002- MPC	8115	4		-1.	110100	4	.0			CM811514
6003- CM811514	110101			4 1.00000	110102		4 0.00000			CM811524
6004- CM811524	110103			4-1.00000						
6005- MPC	8115	5		-1.	110100	5	1.00000			CM811515
6006- CM811515	110101			5 0.00000	110102		5-1.00000			CM811525
6007- CM811525	110103			5-0.00000						
6008- MPC	8115	6		-1.	110100	6	.0			CM811516
6009- CM811516	110101			6 1.00000	110102		6 0.00000			CM811526
6010- CM811526	110103			6-1.00000						
6011- MPC	8116	1		-1.	110100	1	1.00000			CM811611
6012- CM811611	110101			1-0.38268	110102		1-0.70711			CM811621
6013- CM811621	110103			1 0.92388						
6014- MPC	8116	2		-1.	110100	2	.0			CM811612
6015- CM811612	110101			2 0.92388	110102		2-0.70711			CM811622
6016- CM811622	110103			2-0.38269						
6017- MPC	8116	3		-1.	110100	3	1.00000			CM811613
6018- CM811613	110101			3-0.38268	110102		3-0.70711			CM811623
6019- CM811623	110103			3 0.92388						
6020- MPC	8116	4		-1.	110100	4	.0			CM811614
6021- CM811614	110101			4 0.92388	110102		4-0.70711			CM811624
6022- CM811624	110103			4-0.38269						
6023- MPC	8116	5		-1.	110100	5	1.00000			CM811615
6024- CM811615	110101			5-0.38268	110102		5-0.70711			CM811625
6025- CM811625	110103			5 0.92388						
6026- MPC	8116	6		-1.	110100	6	.0			CM811616
6027- CM811616	110101			6 0.92388	110102		6-0.70711			CM811626
6028- CM811626	110103			6-0.38269						
6029- MPC	8117	1		-1.	110100	1	1.00000			CM811711
6030- CM811711	110101			1-0.70711	110102		1-0.00000			CM811721
6031- CM811721	110103			1 0.70711						
6032- MPC	8117	2		-1.	110100	2	.0			CM811712
6033- CM811712	110101			2 0.70711	110102		2-1.00000			CM811722
6034- CM811722	110103			2 0.70710						
6035- MPC	8117	3		-1.	110100	3	1.00000			CM811713
6036- CM811713	110101			3-0.70711	110102		3-0.00000			CM811723
6037- CM811723	110103			3 0.70711						
6038- MPC	8117	4		-1.	110100	4	.0			CM811714
6039- CM811714	110101			4 0.70711	110102		4-1.00000			CM811724
6040- CM811724	110103			4 0.70710						
6041- MPC	8117	5		-1.	110100	5	1.00000			CM811715
6042- CM811715	110101			5-0.70711	110102		5-0.00000			CM811725
6043- CM811725	110103			5 0.70711						
6044- MPC	8117	6		-1.	110100	6	.0			CM811716
6045- CM811716	110101			6 0.70711	110102		6-1.00000			CM811726
6046- CM811726	110103			6 0.70710						
6047- MPC	8118	1		-1.	110100	1	1.00000			CM811811
6048- CM811811	110101			1-0.92388	110102		1 0.70711			CM811821
6049- CM811821	110103			1-0.38268						
6050- MPC	8118	2		-1.	110100	2	.0			CM811812

EXTERNAL TANK NO. FLUID
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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
6051-	EM811812	110101	2	0.38268	110102	2-0.70711				EM811822
6052-	EM811822	110103	2	0.92388						
6053-	MPC	8118	3	-1.	110100	3	1.00000			EM811813
6054-	EM811813	110101	3-0.92388	110102	3	0.70711				EM811823
6055-	EM811823	110103	3-0.38268							
6056-	MPC	8118	4	-1.	110100	4	.0			EM811814
6057-	EM811814	110101	4	0.38268	110102	4-0.70711				EM811824
6058-	EM811824	110103	4	0.92388						
6059-	MPC	8118	5	-1.	110100	5	1.00000			EM811815
6060-	EM811815	110101	5-0.92388	110102	5	0.70711				EM811825
6061-	EM811825	110103	5-0.38268							
6062-	MPC	8118	6	-1.	110100	6	.0			EM811816
6063-	EM811816	110101	6	0.38268	110102	6-0.70711				EM811826
6064-	EM811826	110103	6	0.92388						
6065-	MPC	8118	1	-1.	110100	1	1.00000			EM811911
6066-	EM811911	110101	1-1.00000	110102	1	1.00000				EM811921
6067-	EM811921	110103	1-1.00000							
6068-	MPC	8118	2	-1.	110100	2	.0			EM811912
6069-	EM811912	110101	2	0.00000	110102	2-0.00000				EM811922
6070-	EM811922	110103	2	0.00000						
6071-	MPC	8118	3	-1.	110100	3	1.00000			EM811913
6072-	EM811913	110101	3-1.00000	110102	3	1.00000				EM811923
6073-	EM811923	110103	3-1.00000							
6074-	MPC	8118	4	-1.	110100	4	.0			EM811914
6075-	EM811914	110101	4	0.00000	110102	4-0.00000				EM811924
6076-	EM811924	110103	4	0.00000						
6077-	MPC	8118	5	-1.	110100	5	1.00000			EM811915
6078-	EM811915	110101	5-1.00000	110102	5	1.00000				EM811925
6079-	EM811925	110103	5-1.00000							
6080-	MPC	8118	6	-1.	110100	6	.0			EM811916
6081-	EM811916	110101	6	0.00000	110102	6-0.00000				EM811926
6082-	EM811926	110103	6	0.00000						
6083-	MPC	8118	1	-1.	110200	1	1.00000			EM813011
6084-	EM813011	110201	1	1.00000	110202	1	1.00000			EM813021
6085-	EM813021	110203	1	1.00000						
6086-	MPC	8130	2	-1.	110200	2	.0			EM813012
6087-	EM813012	110201	2	0.0	110202	2	0.0			EM813022
6088-	EM813022	110203	2	0.0						
6089-	MPC	8130	3	-1.	110200	3	1.00000			EM813013
6090-	EM813013	110201	3	1.00000	110202	3	1.00000			EM813023
6091-	EM813023	110203	3	1.00000						
6092-	MPC	8130	4	-1.	110200	4	.0			EM813014
6093-	EM813014	110201	4	0.0	110202	4	0.0			EM813024
6094-	EM813024	110203	4	0.0						
6095-	MPC	8130	5	-1.	110200	5	1.00000			EM813015
6096-	EM813015	110201	5	1.00000	110202	5	1.00000			EM813025
6097-	EM813025	110203	5	1.00000						
6098-	MPC	8130	6	-1.	110200	6	.0			EM813016
6099-	EM813016	110201	6	0.0	110202	6	0.0			EM813026
6100-	EM813026	110203	6	0.0						

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	1	1	1	1	1	1	1	1	1
6101-	MP	8131	110201	-1.	110200	1	1.00000			CM813111
6102-	CM813111	110201	110203	1 0.92388	110202		0.70711			CM813121
6103-	CM813121	110203	8131	1 0.38268		2				CM813112
6104-	MP	8131	2	-1.	110200	2	.0			CM813122
6105-	CM813112	110201	110203	2 0.38268	110202		2 0.70711			
6106-	CM813122	110203	8131	2 0.92388		3				CM813113
6107-	MP	8131	3	-1.	110200	3	1.00000			CM813123
6108-	CM813113	110201	110203	3 0.92388	110202		3 0.70711			
6109-	CM813123	110203	8131	3 0.38268		4				CM813114
6110-	MP	8131	4	-1.	110200	4	.0			CM813124
6111-	CM813114	110201	110203	4 0.38268	110202		4 0.70711			
6112-	CM813124	110203	8131	4 0.92388		5				CM813115
6113-	MP	8131	5	-1.	110200	5	1.00000			CM813125
6114-	CM813115	110201	110203	5 0.92388	110202		5 0.70711			
6115-	CM813125	110203	8131	5 0.38268		6				CM813116
6116-	MP	8131	6	-1.	110200	6	.0			CM813126
6117-	CM813116	110201	110203	6 0.38268	110202		6 0.70711			
6118-	CM813126	110203	8132	6 0.92388		1				CM813211
6119-	MP	8132	1	-1.	110200	1	1.00000			CM813221
6120-	CM813211	110201	110203	1 0.70711	110202		1 0.00000			
6121-	CM813221	110203	8132	1 -0.70711		2				CM813212
6122-	MP	8132	2	-1.	110200	2	.0			CM813222
6123-	CM813212	110201	110203	2 0.70711	110202		2 1.00000			
6124-	CM813222	110203	8132	2 0.70711		3				CM813213
6125-	MP	8132	3	-1.	110200	3	1.00000			CM813223
6126-	CM813213	110201	110203	3 0.70711	110202		3 0.00000			
6127-	CM813223	110203	8132	3 -0.70711		4				CM813214
6128-	MP	8132	4	-1.	110200	4	.0			CM813224
6129-	CM813214	110201	110203	4 0.70711	110202		4 1.00000			
6130-	CM813224	110203	8132	4 0.70711		5				CM813215
6131-	MP	8132	5	-1.	110200	5	1.00000			CM813225
6132-	CM813215	110201	110203	5 0.70711	110202		5 0.00000			
6133-	CM813225	110203	8132	5 -0.70711		6				CM813216
6134-	MP	8132	6	-1.	110200	6	.0			CM813226
6135-	CM813216	110201	110203	6 0.70711	110202		6 1.00000			
6136-	CM813226	110203	8132	6 0.70711		1				CM813311
6137-	MP	8132	1	-1.	110200	1	1.00000			CM813321
6138-	CM813311	110201	110203	1 0.38268	110202		1 -0.70711			
6139-	CM813321	110203	8132	1 -0.92388		2				CM813312
6140-	MP	8132	2	-1.	110200	2	.0			CM813322
6141-	CM813312	110201	110203	2 0.92388	110202		2 0.70711			
6142-	CM813322	110203	8132	2 -0.38268		3				CM813313
6143-	MP	8132	3	-1.	110200	3	1.00000			CM813323
6144-	CM813313	110201	110203	3 0.38268	110202		3 -0.70711			
6145-	CM813323	110203	8132	3 -0.92388		4				CM813314
6146-	MP	8132	4	-1.	110200	4	.0			CM813324
6147-	CM813314	110201	110203	4 0.92388	110202		4 0.70711			
6148-	CM813324	110203	8132	4 -0.38268		5				CM813315
6149-	MP	8132	5	-1.	110200	5	1.00000			CM813325
6150-	CM813315	110201	110203	5 0.38268	110202		5 -0.70711			

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
6151-	EM813325	1	110203	5-0.92388						EM813316
6152-	MPC	8136	6	-1.	110200	6		.0		EM813326
6153-	EM813316	1	110201	6 0.92388	110202		6 0.70711			
6154-	EM813326	1	110203	6-0.38268						
6155-	MPC	8135	1	-1.	110200	1	1.00000			EM813511
6156-	EM813511	1	110201	1 0.00000	110202		1-1.00000			EM813521
6157-	EM813521	1	110203	1-0.00000						
6158-	MPC	8135	2	-1.	110200	2	.0			EM813512
6159-	EM813512	1	110201	2 1.00000	110202		2 0.00000			EM813522
6160-	EM813522	1	110203	2-1.00000						
6161-	MPC	8135	3	-1.	110200	3	1.00000			EM813513
6162-	EM813513	1	110201	3 0.00000	110202		3-1.00000			EM813523
6163-	EM813523	1	110203	3-0.00000						
6164-	MPC	8135	4	-1.	110200	4	.0			EM813514
6165-	EM813514	1	110201	4 1.00000	110202		4 0.00000			EM813524
6166-	EM813524	1	110203	4-1.00000						
6167-	MPC	8135	5	-1.	110200	5	1.00000			EM813515
6168-	EM813515	1	110201	5 0.00000	110202		5-1.00000			EM813525
6169-	EM813525	1	110203	5-0.00000						
6170-	MPC	8135	6	-1.	110200	6	.0			EM813516
6171-	EM813516	1	110201	6 1.00000	110202		6 0.00000			EM813526
6172-	EM813526	1	110203	6-1.00000						
6173-	MPC	8136	1	-1.	110200	1	1.00000			EM813611
6174-	EM813611	1	110201	1-0.38268	110202		1-0.70711			EM813621
6175-	EM813621	1	110203	1 0.92388						
6176-	MPC	8136	2	-1.	110200	2	.0			EM813612
6177-	EM813612	1	110201	2 0.92388	110202		2-0.70711			EM813622
6178-	EM813622	1	110203	2-0.38269						
6179-	MPC	8136	3	-1.	110200	3	1.00000			EM813613
6180-	EM813613	1	110201	3-0.38268	110202		3-0.70711			EM813623
6181-	EM813623	1	110203	3 0.92388						
6182-	MPC	8136	4	-1.	110200	4	.0			EM813614
6183-	EM813614	1	110201	4 0.92388	110202		4-0.70711			EM813624
6184-	EM813624	1	110203	4-0.38269						
6185-	MPC	8136	5	-1.	110200	5	1.00000			EM813615
6186-	EM813615	1	110201	5-0.38268	110202		5-0.70711			EM813625
6187-	EM813625	1	110203	5 0.92388						
6188-	MPC	8136	6	-1.	110200	6	.0			EM813616
6189-	EM813616	1	110201	6 0.92388	110202		6-0.70711			EM813626
6190-	EM813626	1	110203	6-0.38269						
6191-	MPC	8137	1	-1.	110200	1	1.00000			EM813711
6192-	EM813711	1	110201	1-0.70711	110202		1-0.00000			EM813721
6193-	EM813721	1	110203	1 0.70711						
6194-	MPC	8137	2	-1.	110200	2	.0			EM813712
6195-	EM813712	1	110201	2 0.70711	110202		2-1.00000			EM813722
6196-	EM813722	1	110203	2 0.70710						
6197-	MPC	8137	3	-1.	110200	3	1.00000			EM813713
6198-	EM813713	1	110201	3-0.70711	110202		3-0.00000			EM813723
6199-	EM813723	1	110203	3 0.70711						
6200-	MPC	8137	4	-1.	110200	4	.0			EM813714

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S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
6201-	CM813714	110201	4	0.70711	110202	4-1.00000			CM813724	
6202-	CM813724	110203	4	0.70710						
6203-	MPG	8137	5	-1.	110200	5	1.00000		CM813715	
6204-	CM813715	110201	5-0.70711	110202		5-0.00000			CM813725	
6205-	CM813725	110203	5	0.70711						
6206-	MPG	8137	6	-1.	110200	6	.0		CM813716	
6207-	CM813716	110201	6	0.70711	110202	6-1.00000			CM813726	
6208-	CM813726	110203	6	0.70710						
6209-	MPG	8138	1	-1.	110200	1	1.00000		CM813811	
6210-	CM813811	110201	1-0.92388	110202		1	0.70711		CM813821	
6211-	CM813821	110203	1-0.38268							
6212-	MPG	8138	2	-1.	110200	2	.0		CM813812	
6213-	CM813812	110201	2	0.38268	110202	2-0.70711			CM813822	
6214-	CM813822	110203	2	0.92388						
6215-	MPG	8138	3	-1.	110200	3	1.00000		CM813813	
6216-	CM813813	110201	3-0.92388	110202		3	0.70711		CM813823	
6217-	CM813823	110203	3-0.18268							
6218-	MPG	8138	4	-1.	110200	4	.0		CM813814	
6219-	CM813814	110201	4	0.38268	110202	4-0.70711			CM813824	
6220-	CM813824	110203	4	0.92388						
6221-	MPG	8138	5	-1.	110200	5	1.00000		CM813815	
6222-	CM813815	110201	5-0.92388	110202		5	0.70711		CM813825	
6223-	CM813825	110203	5-0.38268							
6224-	MPG	8138	6	-1.	110200	6	.0		CM813816	
6225-	CM813816	110201	6	0.38268	110202	6-0.70711			CM813826	
6226-	CM813826	110203	6	0.92388						
6227-	MPG	8139	1	-1.	110200	1	1.00000		CM813911	
6228-	CM813911	110201	1-1.00000	110202		1	1.00000		CM813921	
6229-	CM813921	110203	1-1.00000							
6230-	MPG	8139	2	-1.	110200	2	.0		CM813912	
6231-	CM813912	110201	2	0.00000	110202	2-0.00000			CM813922	
6232-	CM813922	110203	2	0.00000						
6233-	MPG	8139	3	-1.	110200	3	1.00000		CM813913	
6234-	CM813913	110201	3-1.00000	110202		3	1.00000		CM813923	
6235-	CM813923	110203	3-1.00000							
6236-	MPG	8139	4	-1.	110200	4	.0		CM813914	
6237-	CM813914	110201	4	0.00000	110202	4-0.00000			CM813924	
6238-	CM813924	110203	4	0.00000						
6239-	MPG	8139	5	-1.	110200	5	1.00000		CM813915	
6240-	CM813915	110201	5-1.00000	110202		5	1.00000		CM813925	
6241-	CM813925	110203	5-1.00000							
6242-	MPG	8139	6	-1.	110200	6	.0		CM813916	
6243-	CM813916	110201	6	0.00000	110202	6-0.00000			CM813926	
6244-	CM813926	110203	6	0.00000						
6245-	MPG	8140	1	1.	8134	3	-1.		CM81407	
6246-	CM81407	8140	3	1.	8134	1	.197328			
6247-	MPG	8134	2	-1.	8134					
6248-	CM815011	110301	1	1.00000	110302	1	1.00000		CM815011	
6249-	CM815011	110301	1	1.00000					CM815021	
6250-	CM815021	110303	1	1.00000						

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
6251-	1	8150	2	-1.	110300	2	.0			EM815012
6252-	1	110301		2 0.0	110302		0.0			EM815022
6253-	1	110303		2 0.0						
6254-	1	8150	3	-1.	110300	3	1.00000			EM815013
6255-	1	110301		3 1.00000	110302		3 1.00000			EM815023
6256-	1	110303		3 1.00000						
6257-	1	8150	4	-1.	110300	4	.0			EM815014
6258-	1	110301		4 0.0	110302		4 0.0			EM815024
6259-	1	110303		4 0.0						
6260-	1	8150	5	-1.	110300	5	1.00000			EM815015
6261-	1	110301		5 1.00000	110302		5 1.00000			EM815025
6262-	1	110303		5 1.00000						
6263-	1	8150	6	-1.	110300	6	.0			EM815016
6264-	1	110301		6 0.0	110302		6 0.0			EM815026
6265-	1	110303		6 0.0						
6266-	1	8151	1	-1.	110300	1	1.00000			EM815111
6267-	1	110301		1 0.92388	110302		1 0.70711			EM815121
6268-	1	110303		1 0.38268						
6269-	1	8151	2	-1.	110300	2	.0			EM815112
6270-	1	110301		2 0.38268	110302		2 0.70711			EM815122
6271-	1	110303		2 0.92388						
6272-	1	8151	3	-1.	110300	3	1.00000			EM815113
6273-	1	110301		3 0.92388	110302		3 0.70711			EM815123
6274-	1	110303		3 0.38268						
6275-	1	8151	4	-1.	110300	4	.0			EM815114
6276-	1	110301		4 0.38268	110302		4 0.70711			EM815124
6277-	1	110303		4 0.92388						
6278-	1	8151	5	-1.	110300	5	1.00000			EM815115
6279-	1	110301		5 0.92388	110302		5 0.70711			EM815125
6280-	1	110303		5 0.38268						
6281-	1	8151	6	-1.	110300	6	.0			EM815116
6282-	1	110301		6 0.38268	110302		6 0.70711			EM815126
6283-	1	110303		6 0.92388						
6284-	1	8152	1	-1.	110300	1	1.00000			EM815211
6285-	1	110301		1 0.70711	110302		1 0.00000			EM815221
6286-	1	110303		1 0.70711						
6287-	1	8152	2	-1.	110300	2	.0			EM815212
6288-	1	110301		2 0.70711	110302		2 1.00000			EM815222
6289-	1	110303		2 0.70711						
6290-	1	8152	3	-1.	110300	3	1.00000			EM815213
6291-	1	110301		3 0.70711	110302		3 0.00000			EM815223
6292-	1	110303		3 0.70711						
6293-	1	8152	4	-1.	110300	4	.0			EM815214
6294-	1	110301		4 0.70711	110302		4 1.00000			EM815224
6295-	1	110303		4 0.70711						
6296-	1	8152	5	-1.	110300	5	1.00000			EM815215
6297-	1	110301		5 0.70711	110302		5 0.00000			EM815225
6298-	1	110303		5 0.70711						
6299-	1	8152	6	-1.	110300	6	.0			EM815216
6300-	1	110301		6 0.70711	110302		6 1.00000			EM815226

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
6300										
6301	EMR15226	1	110303	6 0.70711						
6302	MPC	1	8152	-1.	110300	1	1.00000			EMR15311
6303	EMR15311		110301	1 0.38268	110302		1-0.70711			EMR15321
6304	EMR15321		110303	1-0.92388						
6305	MPC	1	8152	-1.	110300	2	.0			EMR15312
6306	EMR15312		110301	2 0.92388	110302		2 0.70711			EMR15322
6307	EMR15322		110303	2-0.38268						
6308	MPC	1	8152	-1.	110300	3	1.00000			EMR15313
6309	EMR15313		110301	3 0.38268	110302		3-0.70711			EMR15323
6310	EMR15323		110303	3-0.92388						
6311	MPC	1	8152	-1.	110300	4	.0			EMR15314
6312	EMR15314		110301	4 0.92388	110302		4 0.70711			EMR15324
6313	EMR15324		110303	4-0.38268						
6314	MPC	1	8152	-1.	110300	5	1.00000			EMR15315
6315	EMR15315		110301	5 0.38268	110302		5-0.70711			EMR15325
6316	EMR15325		110303	5-0.92388						
6317	MPC	1	8152	-1.	110300	6	.0			EMR15316
6318	EMR15316		110301	6 0.92388	110302		6 0.70711			EMR15326
6319	EMR15326		110303	6-0.38268						
6320	MPC	1	8154	-1.	110300	1	1.00000			EMR15411
6321	EMR15411		110301	1 0.19732	110302		1-0.92213			EMR15421
6322	EMR15421		110303	1-0.56122						
6323	MPC	1	8154	-1.	110300	2	.0			EMR15412
6324	EMR15412		110301	2 0.98034	110302		2 0.38687			EMR15422
6325	EMR15422		110303	2-0.82767						
6326	MPC	1	8154	-1.	110300	3	1.00000			EMR15413
6327	EMR15413		110301	3 0.19732	110302		3-0.92213			EMR15423
6328	EMR15423		110303	3-0.56122						
6329	MPC	1	8154	-1.	110300	4	.0			EMR15414
6330	EMR15414		110301	4 0.98034	110302		4 0.38687			EMR15424
6331	EMR15424		110303	4-0.82767						
6332	MPC	1	8154	-1.	110300	5	1.00000			EMR15415
6333	EMR15415		110301	5 0.19732	110302		5-0.92213			EMR15425
6334	EMR15425		110303	5-0.56122						
6335	MPC	1	8154	-1.	110300	6	.0			EMR15416
6336	EMR15416		110301	6 0.98034	110302		6 0.38687			EMR15426
6337	EMR15426		110303	6-0.82767						
6338	MPC	1	8155	-1.	110300	1	1.00000			EMR15511
6339	EMR15511		110301	1 0.00000	110302		1-1.00000			EMR15521
6340	EMR15521		110303	1-0.00000						
6341	MPC	1	8155	-1.	110300	2	.0			EMR15512
6342	EMR15512		110301	2 1.00000	110302		2 0.00000			EMR15522
6343	EMR15522		110303	2-1.00000						
6344	MPC	1	8155	-1.	110300	3	1.00000			EMR15513
6345	EMR15513		110301	3 0.00000	110302		3-1.00000			EMR15523
6346	EMR15523		110303	3-0.00000						
6347	MPC	1	8155	-1.	110300	4	.0			EMR15514
6348	EMR15514		110301	4 1.00000	110302		4 0.00000			EMR15524
6349	EMR15524		110303	4-1.00000						
6350	MPC	1	8155	-1.	110300	5	1.00000			EMR15515

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	1	2	3	4	5	6	7	8	9	10
C433										
310VT										
5151-	1	2	3	4	5	6	7	8	9	10
5152-	1	2	3	4	5	6	7	8	9	10
5153-	1	2	3	4	5	6	7	8	9	10
5154-	1	2	3	4	5	6	7	8	9	10
5155-	1	2	3	4	5	6	7	8	9	10
5156-	1	2	3	4	5	6	7	8	9	10
5157-	1	2	3	4	5	6	7	8	9	10
5158-	1	2	3	4	5	6	7	8	9	10
5159-	1	2	3	4	5	6	7	8	9	10
5160-	1	2	3	4	5	6	7	8	9	10
5161-	1	2	3	4	5	6	7	8	9	10
5162-	1	2	3	4	5	6	7	8	9	10
5163-	1	2	3	4	5	6	7	8	9	10
5164-	1	2	3	4	5	6	7	8	9	10
5165-	1	2	3	4	5	6	7	8	9	10
5166-	1	2	3	4	5	6	7	8	9	10
5167-	1	2	3	4	5	6	7	8	9	10
5168-	1	2	3	4	5	6	7	8	9	10
5169-	1	2	3	4	5	6	7	8	9	10
5170-	1	2	3	4	5	6	7	8	9	10
5171-	1	2	3	4	5	6	7	8	9	10
5172-	1	2	3	4	5	6	7	8	9	10
5173-	1	2	3	4	5	6	7	8	9	10
5174-	1	2	3	4	5	6	7	8	9	10
5175-	1	2	3	4	5	6	7	8	9	10
5176-	1	2	3	4	5	6	7	8	9	10
5177-	1	2	3	4	5	6	7	8	9	10
5178-	1	2	3	4	5	6	7	8	9	10
5179-	1	2	3	4	5	6	7	8	9	10
5180-	1	2	3	4	5	6	7	8	9	10
5181-	1	2	3	4	5	6	7	8	9	10
5182-	1	2	3	4	5	6	7	8	9	10
5183-	1	2	3	4	5	6	7	8	9	10
5184-	1	2	3	4	5	6	7	8	9	10
5185-	1	2	3	4	5	6	7	8	9	10
5186-	1	2	3	4	5	6	7	8	9	10
5187-	1	2	3	4	5	6	7	8	9	10
5188-	1	2	3	4	5	6	7	8	9	10
5189-	1	2	3	4	5	6	7	8	9	10
5190-	1	2	3	4	5	6	7	8	9	10
5191-	1	2	3	4	5	6	7	8	9	10
5192-	1	2	3	4	5	6	7	8	9	10
5193-	1	2	3	4	5	6	7	8	9	10
5194-	1	2	3	4	5	6	7	8	9	10
5195-	1	2	3	4	5	6	7	8	9	10
5196-	1	2	3	4	5	6	7	8	9	10
5197-	1	2	3	4	5	6	7	8	9	10
5198-	1	2	3	4	5	6	7	8	9	10
5199-	1	2	3	4	5	6	7	8	9	10
5200-	1	2	3	4	5	6	7	8	9	10

ORIGINAL PAGE IS
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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CONT										
6401-	1	8158	4	-1.	110300	4	.0			24815814
6402-	1	110301		4 0.38268	110302		4 -0.70711			24815824
6403-	1	110303		4 0.92388						
6404-	1	8158	5	-1.	110300	5	1.00000			24815815
6405-	1	110301		5 -0.92388	110302		5 0.70711			24815825
6406-	1	110303		5 -0.38268						
6407-	1	8158	6	-1.	110300	6	.0			24815816
6408-	1	110301		6 0.38268	110302		6 -0.70711			24815826
6409-	1	110303		6 0.92388						
6410-	1	8158	1	-1.	110300	1	1.00000			24815911
6411-	1	110301		1 -1.00000	110302		1 1.00000			24815921
6412-	1	110303		1 -1.00000						
6413-	1	8158	2	-1.	110300	2	.0			24815912
6414-	1	110301		2 0.00000	110302		2 -0.00000			24815922
6415-	1	110303		2 0.90000						
6416-	1	8158	3	-1.	110300	3	1.00000			24815913
6417-	1	110301		3 -1.00000	110302		3 1.00000			24815923
6418-	1	110303		3 -1.00000						
6419-	1	8158	4	-1.	110300	4	.0			24815914
6420-	1	110301		4 0.00000	110302		4 -0.00000			24815924
6421-	1	110303		4 0.00000						
6422-	1	8158	5	-1.	110300	5	1.00000			24815915
6423-	1	110301		5 -1.00000	110302		5 1.00000			24815925
6424-	1	110303		5 -1.00000						
6425-	1	8158	6	-1.	110300	6	.0			24815916
6426-	1	110301		6 0.00000	110302		6 -0.00000			24815926
6427-	1	110303		6 0.00000						
6428-	1	8170	1	-1.	110500	1	1.00900			24817011
6429-	1	110501		1 1.00000	110502		1 1.00000			24817021
6430-	1	110503		1 1.00000						
6431-	1	8170	2	-1.	110500	2	.0			24817012
6432-	1	110501		2 0.0	110502		2 0.0			24817022
6433-	1	110503		2 0.0						
6434-	1	8170	3	-1.	110500	3	1.00000			24817013
6435-	1	110501		3 1.00000	110502		3 1.00000			24817023
6436-	1	110503		3 1.00000						
6437-	1	8170	4	-1.	110500	4	.0			24817014
6438-	1	110501		4 0.0	110502		4 0.0			24817024
6439-	1	110503		4 0.0						
6440-	1	8170	5	-1.	110500	5	1.00000			24817015
6441-	1	110501		5 1.00000	110502		5 1.00000			24817025
6442-	1	110503		5 1.00000						
6443-	1	8170	6	-1.	110500	6	.0			24817016
6444-	1	110501		6 0.0	110502		6 0.0			24817026
6445-	1	110503		6 0.0						
6446-	1	8171	1	-1.	110500	1	1.00000			24817111
6447-	1	110501		1 0.92388	110502		1 0.70711			24817121
6448-	1	110503		1 0.38268						
6449-	1	8171	2	-1.	110500	2	.0			24817112
6450-	1	110501		2 0.38268	110502		2 0.70711			24817122

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
6490	EM817122	110503	2	0.92388	110500	3	1.00000	EM817113		
6491	EM817113	110501	3	0.92388	110502	3	0.70711	EM817123		
6492	EM817123	110503	4	0.38268	110500	4	0.0	EM817114		
6493	EM817114	110501	4	0.38268	110502	4	0.70711	EM817124		
6494	EM817124	110503	5	0.92388	110500	5	1.00000	EM817115		
6495	EM817115	110501	5	0.92388	110502	5	0.70711	EM817125		
6496	EM817125	110503	6	0.38268	110500	6	0.0	EM817116		
6497	EM817116	110501	6	0.38268	110502	6	0.70711	EM817126		
6498	EM817126	110503	1	0.92388	110500	1	1.00000	EM817211		
6499	EM817211	110501	1	0.70711	110502	1	0.00000	EM817221		
6500	EM817221	110503	2	0.70711	110500	2	0.0	EM817212		
6501	EM817212	110501	2	0.70711	110502	2	1.00000	EM817222		
6502	EM817222	110503	3	0.70711	110500	3	1.00000	EM817213		
6503	EM817213	110501	3	0.70711	110502	3	0.00000	EM817223		
6504	EM817223	110503	4	0.70711	110500	4	0.0	EM817214		
6505	EM817214	110501	4	0.70711	110502	4	1.00000	EM817224		
6506	EM817224	110503	5	0.70711	110500	5	1.00000	EM817215		
6507	EM817215	110501	5	0.70711	110502	5	0.00000	EM817225		
6508	EM817225	110503	6	0.70711	110500	6	0.0	EM817216		
6509	EM817216	110501	6	0.70711	110502	6	1.00000	EM817226		
6510	EM817226	110503	1	0.92388	110500	1	1.00000	EM817311		
6511	EM817311	110501	1	0.38268	110502	1	0.70711	EM817321		
6512	EM817321	110503	2	0.92388	110500	2	0.0	EM817312		
6513	EM817312	110501	2	0.92388	110502	2	0.70711	EM817322		
6514	EM817322	110503	3	0.38268	110500	3	1.00000	EM817313		
6515	EM817313	110501	3	0.38268	110502	3	0.70711	EM817323		
6516	EM817323	110503	4	0.92388	110500	4	0.0	EM817314		
6517	EM817314	110501	4	0.92388	110502	4	0.70711	EM817324		
6518	EM817324	110503	5	0.38268	110500	5	1.00000	EM817315		
6519	EM817315	110501	5	0.38268	110502	5	0.70711	EM817325		
6520	EM817325	110503	6	0.92388	110500	6	0.0	EM817316		
6521	EM817316	110501	6	0.92388	110502	6	0.70711	EM817326		
6522	EM817326	110503	1	0.38268	110500	1	1.00000	EM817411		
6523	EM817411	110501	1	0.38268	110502	1	0.00000			

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CARD	1	2	3	4	5	6	7	8	9	10
6501-	CM817411	110501	1	0.00000	110502	1-1.00000				CM817421
6502-	CM817421	110503	1	0.00000						
6503-	MPG	8174	2	-1.	110500	2	.0			CM817412
6504-	CM817412	110501	2	1.00000	110502	2	0.00000			CM817422
6505-	CM817422	110503	2	-1.00000						
6506-	MPG	8174	3	-1.	110500	3	1.00000			CM817413
6507-	CM817413	110501	3	0.00000	110502	3	-1.00000			CM817423
6508-	CM817423	110503	3	0.00000						
6509-	MPG	8174	4	-1.	110500	4	.0			CM817414
6510-	CM817414	110501	4	1.00000	110502	4	0.00000			CM817424
6511-	CM817424	110503	4	-1.00000						
6512-	MPG	8174	5	-1.	110500	5	1.00000			CM817415
6513-	CM817415	110501	5	0.00000	110502	5	-1.00000			CM817425
6514-	CM817425	110503	5	0.00000						
6515-	MPG	8174	6	-1.	110500	6	.0			CM817416
6516-	CM817416	110501	6	1.00000	110502	6	0.00000			CM817426
6517-	CM817426	110503	6	-1.00000						
6518-	MPG	8175	1	-1.	110500	1	1.00000			CM817511
6519-	CM817511	110501	1	0.38268	110502	1	-0.70711			CM817521
6520-	CM817521	110503	1	0.92388						
6521-	MPG	8175	2	-1.	110500	2	.0			CM817512
6522-	CM817512	110501	2	0.92388	110502	2	-0.70711			CM817522
6523-	CM817522	110503	2	-0.38269						
6524-	MPG	8175	3	-1.	110500	3	1.00000			CM817513
6525-	CM817513	110501	3	0.38268	110502	3	-0.70711			CM817523
6526-	CM817523	110503	3	0.92388						
6527-	MPG	8175	4	-1.	110500	4	.0			CM817514
6528-	CM817514	110501	4	0.92388	110502	4	-0.70711			CM817524
6529-	CM817524	110503	4	-0.38269						
6530-	MPG	8175	5	-1.	110500	5	1.00000			CM817515
6531-	CM817515	110501	5	0.38268	110502	5	-0.70711			CM817525
6532-	CM817525	110503	5	0.92388						
6533-	MPG	8175	6	-1.	110500	6	.0			CM817516
6534-	CM817516	110501	6	0.92388	110502	6	-0.70711			CM817526
6535-	CM817526	110503	6	-0.38269						
6536-	MPG	8176	1	-1.	110500	1	1.00000			CM817611
6537-	CM817611	110501	1	0.70711	110502	1	-0.00000			CM817621
6538-	CM817621	110503	1	0.70711						
6539-	MPG	8176	2	-1.	110500	2	.0			CM817612
6540-	CM817612	110501	2	0.70711	110502	2	-1.00000			CM817622
6541-	CM817622	110503	2	0.70710						
6542-	MPG	8176	3	-1.	110500	3	1.00000			CM817613
6543-	CM817613	110501	3	0.70711	110502	3	-0.00000			CM817623
6544-	CM817623	110503	3	0.70711						
6545-	MPG	8176	4	-1.	110500	4	.0			CM817614
6546-	CM817614	110501	4	0.70711	110502	4	-1.00000			CM817624
6547-	CM817624	110503	4	0.70710						
6548-	MPG	8176	5	-1.	110500	5	1.00000			CM817615
6549-	CM817615	110501	5	0.70711	110502	5	-0.00000			CM817625
6550-	CM817625	110503	5	0.70711						

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
6591-	MP	8176	6	-1.	110500	6	.0			EM817616
6592-	EM817616	110501		6 0.70711	110502		0-1.00000			EM817626
6593-	EM817626	110503		6 0.70710						
6594-	MP	8177	1	-1.	110500	1	1.00000			EM817711
6595-	EM817711	110501		1-0.92388	110502		1 0.70711			EM817721
6596-	EM817721	110503		1-0.38268						
6597-	MP	8177	2	-1.	110500	2	.0			EM817712
6598-	EM817712	110501		2 0.38268	110502		2-0.70711			EM817722
6599-	EM817722	110503		2 0.92388						
6600-	MP	8177	3	-1.	110500	3	1.00000			EM817713
6601-	EM817713	110501		3-0.92388	110502		3 0.70711			EM817723
6602-	EM817723	110503		3-0.38268						
6603-	MP	8177	4	-1.	110500	4	.0			EM817714
6604-	EM817714	110501		4 0.38268	110502		4-0.70711			EM817724
6605-	EM817724	110503		4 0.92388						
6606-	MP	8177	5	-1.	110500	5	1.00000			EM817715
6607-	EM817715	110501		5-0.92388	110502		5 0.70711			EM817725
6608-	EM817725	110503		5-0.38268						
6609-	MP	8177	6	-1.	110500	6	.0			EM817716
6610-	EM817716	110501		6 0.38268	110502		6-0.70711			EM817726
6611-	EM817726	110503		6 0.92388						
6612-	MP	8178	1	-1.	110500	1	1.00000			EM817811
6613-	EM817811	110501		1-1.00000	110502		1 1.00000			EM817821
6614-	EM817821	110503		1-1.00000						
6615-	MP	8178	2	-1.	110500	2	.0			EM817812
6616-	EM817812	110501		2 0.00000	110502		2-0.00000			EM817822
6617-	EM817822	110503		2 0.00000						
6618-	MP	8178	3	-1.	110500	3	1.00000			EM817813
6619-	EM817813	110501		3-1.00000	110502		3 1.00000			EM817823
6620-	EM817823	110503		3-1.00000						
6621-	MP	8178	4	-1.	110500	4	.0			EM817814
6622-	EM817814	110501		4 0.00000	110502		4-0.00000			EM817824
6623-	EM817824	110503		4 0.00000						
6624-	MP	8178	5	-1.	110500	5	1.00000			EM817815
6625-	EM817815	110501		5-1.00000	110502		5 1.00000			EM817825
6626-	EM817825	110503		5-1.00000						
6627-	MP	8178	6	-1.	110500	6	.0			EM817816
6628-	EM817816	110501		6 0.00000	110502		6-0.00000			EM817826
6629-	EM817826	110503		6 0.00000						
6630-	MP	8190	1	-1.	110600	1	1.00000			EM819011
6631-	EM819011	110601		1 1.00000	110602		1 1.00000			EM819021
6632-	EM819021	110603		1 1.00000						
6633-	MP	8190	2	-1.	110600	2	.0			EM819012
6634-	EM819012	110601		2 0.0	110602		2 0.0			EM819022
6635-	EM819022	110603		2 0.0						
6636-	MP	8190	3	-1.	110600	3	1.00000			EM819013
6637-	EM819013	110601		3 1.00000	110602		3 1.00000			EM819023
6638-	EM819023	110603		3 1.00000						
6639-	MP	8190	4	-1.	110600	4	.0			EM819014
6640-	EM819014	110601		4 0.0	110602		4 0.0			EM819024

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CM819024	1	110603	5	4 0.0						
MPC	8190									
CM819015	1	110601	5	-1.	110600	5	1.00000			CM819015
CM819025	1	110603	6	5 1.00000	110602		5 1.00000			CM819025
MPC	8190									
CM819016	1	110601	6	-1.	110600	6	.0			CM819016
CM819026	1	110603	6	6 0.0	110602		6 0.0			CM819026
MPC	8190									
CM819111	1	110601	1	-1.	110600	1	1.00000			CM819111
CM819121	1	110603	2	1 0.92388	110602		1 0.70711			CM819121
MPC	8191									
CM819112	1	110601	2	-1.	110600	2	.0			CM819112
CM819122	1	110603	3	2 0.38268	110602		2 0.70711			CM819122
MPC	8191									
CM819113	1	110601	3	-1.	110600	3	1.00000			CM819113
CM819123	1	110603	4	3 0.92388	110602		3 0.70711			CM819123
MPC	8191									
CM819114	1	110601	4	-1.	110600	4	.0			CM819114
CM819124	1	110603	5	4 0.38268	110602		4 0.70711			CM819124
MPC	8191									
CM819115	1	110601	5	-1.	110600	5	1.00000			CM819115
CM819125	1	110603	6	5 0.92388	110602		5 0.70711			CM819125
MPC	8191									
CM819116	1	110601	6	-1.	110600	6	.0			CM819116
CM819126	1	110603	7	6 0.38268	110602		6 0.70711			CM819126
MPC	8191									
CM819211	1	110601	1	-1.	110600	1	1.00000			CM819211
CM819221	1	110603	2	1 0.70711	110602		1 0.00000			CM819221
MPC	8192									
CM819212	1	110601	2	-1.	110600	2	.0			CM819212
CM819222	1	110603	3	2 0.70711	110602		2 1.00000			CM819222
MPC	8192									
CM819213	1	110601	3	-1.	110600	3	1.00000			CM819213
CM819223	1	110603	4	3 0.70711	110602		3 0.00000			CM819223
MPC	8192									
CM819214	1	110601	4	-1.	110600	4	.0			CM819214
CM819224	1	110603	5	4 0.70711	110602		4 1.00000			CM819224
MPC	8192									
CM819215	1	110601	5	-1.	110600	5	1.00000			CM819215
CM819225	1	110603	6	5 0.70711	110602		5 0.00000			CM819225
MPC	8192									
CM819216	1	110601	6	-1.	110600	6	.0			CM819216
CM819226	1	110603	7	6 0.70711	110602		6 1.00000			CM819226
MPC	8192									
CM819311	1	110601	1	-1.	110600	1	1.00000			CM819311
CM819321	1	110603	2	1 0.38268	110602		1 0.70711			CM819321
MPC	8193									
CM819312	1	110601	2	-1.	110600	2	.0			CM819312
CM819322	1	110603	3	2 0.92388	110602		2 0.70711			CM819322
MPC	8193									
CM819313	1	110601	3	-1.	110600	3	1.00000			CM819313

EXTERNAL TANK NO. FLUID
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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
6551-	CM819313	110601	110601	3 0.38268	110602	3-0.70711				CM819323
6552-	CM819323	110603	110603	3-0.92388						
6553-	MPC	8192	4	-1.	110600	4	.0			CM819314
6554-	CM819314	110601	110601	4 0.92388	110602	4 0.70711				CM819324
6555-	CM819324	110603	110603	4-0.38268						
6556-	MPC	8192	5	-1.	110600	5	1.00000			CM819315
6557-	CM819315	110601	110601	5 0.38268	110602	5-0.70711				CM819325
6558-	CM819325	110603	110603	5-0.92388						
6559-	MPC	8192	6	-1.	110600	6	.0			CM819316
6560-	CM819316	110601	110601	6 0.92388	110602	6 0.70711				CM819326
6561-	CM819326	110603	110603	6-0.38268						
6562-	MPC	8194	1	-1.	110600	1	1.00000			CM819411
6563-	CM819411	110601	110601	1 0.00000	110602	1-1.00000				CM819421
6564-	CM819421	110603	110603	1-0.00000						
6565-	MPC	8194	2	-1.	110600	2	.0			CM819412
6566-	CM819412	110601	110601	2 1.00000	110602	2 0.00000				CM819422
6567-	CM819422	110603	110603	2-1.00000						
6568-	MPC	8194	3	-1.	110600	3	1.00000			CM819413
6569-	CM819413	110601	110601	3 0.00000	110602	3-1.00000				CM819423
6570-	CM819423	110603	110603	3-0.00000						
6571-	MPC	8194	4	-1.	110600	4	.0			CM819414
6572-	CM819414	110601	110601	4 1.00000	110602	4 0.00000				CM819424
6573-	CM819424	110603	110603	4-1.00000						
6574-	MPC	8194	5	-1.	110600	5	1.00000			CM819415
6575-	CM819415	110601	110601	5 0.00000	110602	5-1.00000				CM819425
6576-	CM819425	110603	110603	5-0.00000						
6577-	MPC	8194	6	-1.	110600	6	.0			CM819416
6578-	CM819416	110601	110601	6 1.00000	110602	6 0.00000				CM819426
6579-	CM819426	110603	110603	6-1.00000						
6580-	MPC	8195	1	-1.	110600	1	1.00000			CM819511
6581-	CM819511	110601	110601	1-0.38268	110602	1-0.70711				CM819521
6582-	CM819521	110603	110603	1 0.92388						
6583-	MPC	8195	2	-1.	110600	2	.0			CM819512
6584-	CM819512	110601	110601	2 0.92388	110602	2-0.70711				CM819522
6585-	CM819522	110603	110603	2-0.38268						
6586-	MPC	8195	3	-1.	110600	3	1.00000			CM819513
6587-	CM819513	110601	110601	3-0.38268	110602	3-0.70711				CM819523
6588-	CM819523	110603	110603	3 0.92388						
6589-	MPC	8195	4	-1.	110600	4	.0			CM819514
6590-	CM819514	110601	110601	4 0.92388	110602	4-0.70711				CM819524
6591-	CM819524	110603	110603	4-0.38268						
6592-	MPC	8195	5	-1.	110600	5	1.00000			CM819515
6593-	CM819515	110601	110601	5-0.38268	110602	5-0.70711				CM819525
6594-	CM819525	110603	110603	5 0.92388						
6595-	MPC	8195	6	-1.	110600	6	.0			CM819516
6596-	CM819516	110601	110601	6 0.92388	110602	6-0.70711				CM819526
6597-	CM819526	110603	110603	6-0.38268						
6598-	MPC	8196	1	-1.	110600	1	1.00000			CM819611
6599-	CM819611	110601	110601	1-0.70711	110602	1-0.00000				CM819621
6600-	CM819621	110603	110603	1 0.70711						

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
C3UNT										
6701-	1	8196			-1.	110600	2	.0		EM819612
6702-			110601	2	0.70711	110602		-1.00000		EM819622
6703-			110603	2	0.70710					
6704-	1	8196	3		-1.	110600	3	1.00000		EM819613
6705-			110601	3	0.70711	110602		3-0.00000		EM819623
6706-			110603	3	0.70711					
6707-	1	8196	4		-1.	110600	4	.0		EM819614
6708-			110601	4	0.70711	110602		4-1.00000		EM819624
6709-			110603	4	0.70710					
6710-	1	8196	5		-1.	110600	5	1.00000		EM819615
6711-			110601	5	0.70711	110602		5-0.00000		EM819625
6712-			110603	5	0.70711					
6713-	1	8196	6		-1.	110600	6	.0		EM819616
6714-			110601	6	0.70711	110602		6-1.00000		EM819626
6715-			110603	6	0.70710					
6716-	1	8197	1		-1.	110600	1	1.00000		EM819711
6717-			110601	1	0.92388	110602		1 0.70711		EM819721
6718-			110603	1	0.38268					
6719-	1	8197	2		-1.	110600	2	.0		EM819712
6720-			110601	2	0.38268	110602		2-0.70711		EM819722
6721-			110603	2	0.92388					
6722-	1	8197	3		-1.	110600	3	1.00000		EM819713
6723-			110601	3	0.92388	110602		3 0.70711		EM819723
6724-			110603	3	0.38268					
6725-	1	8197	4		-1.	110600	4	.0		EM819714
6726-			110601	4	0.38268	110602		4-0.70711		EM819724
6727-			110603	4	0.92388					
6728-	1	8197	5		-1.	110600	5	1.00000		EM819715
6729-			110601	5	0.92388	110602		5 0.70711		EM819725
6730-			110603	5	0.38268					
6731-	1	8197	6		-1.	110600	6	.0		EM819716
6732-			110601	6	0.38268	110602		6-0.70711		EM819726
6733-			110603	6	0.92388					
6734-	1	8196	1		-1.	110600	1	1.00000		EM819611
6735-			110601	1	1.00000	110602		1 1.00000		EM819621
6736-			110603	1	1.00000					
6737-	1	8196	2		-1.	110600	2	.0		EM819612
6738-			110601	2	0.00000	110602		2-0.00000		EM819622
6739-			110603	2	0.00000					
6740-	1	8196	3		-1.	110600	3	1.00000		EM819613
6741-			110601	3	1.00000	110602		3 1.00000		EM819623
6742-			110603	3	1.00000					
6743-	1	8196	4		-1.	110600	4	.0		EM819614
6744-			110601	4	0.00000	110602		4-0.00000		EM819624
6745-			110603	4	0.00000					
6746-	1	8196	5		-1.	110600	5	1.00000		EM819615
6747-			110601	5	1.00000	110602		5 1.00000		EM819625
6748-			110603	5	1.00000					
6749-	1	8196	6		-1.	110600	6	.0		EM819616
6750-			110601	6	0.00000	110602		6-0.00000		EM819626

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
6751-	6M821026	110603	6 0.00000							
6752-	MPC	8205	3	1.	8210	1	-1.			
6753-	MPC	8210	1	-1.	110700	1	1.00000			6M821011
6754-	6M821011	110701	1	1.00000	110702	1	1.00000			6M821021
6755-	6M821021	110703	1	1.00000						
6756-	MPC	8210	2	-1.	110700	2	.0			6M821012
6757-	6M821012	110701	1	2 0.0	110702	2	2 0.0			6M821022
6758-	6M821022	110703	1	2 0.0						
6759-	MPC	8210	3	-1.	110700	3	1.00000			6M821013
6760-	6M821013	110701	1	3 1.00000	110702	3	1.00000			6M821023
6761-	6M821023	110703	1	3 1.00000						
6762-	MPC	8210	4	-1.	110700	4	.0			6M821014
6763-	6M821014	110701	1	4 0.0	110702	4	4 0.0			6M821024
6764-	6M821024	110703	1	4 0.0						
6765-	MPC	8210	5	-1.	110700	5	1.00000			6M821015
6766-	6M821015	110701	1	5 1.00000	110702	5	1.00000			6M821025
6767-	6M821025	110703	1	5 1.00000						
6768-	MPC	8210	6	-1.	110700	6	.0			6M821016
6769-	6M821016	110701	1	6 0.0	110702	6	6 0.0			6M821026
6770-	6M821026	110703	1	6 0.0						
6771-	MPC	8211	1	-1.	110700	1	1.00000			6M821111
6772-	6M821111	110701	1	1 0.92388	110702	1	1 0.70711			6M821121
6773-	6M821121	110703	1	1 0.38268						
6774-	MPC	8211	2	-1.	110700	2	.0			6M821112
6775-	6M821112	110701	1	2 0.38268	110702	2	2 0.70711			6M821122
6776-	6M821122	110703	1	2 0.92388						
6777-	MPC	8211	3	-1.	110700	3	1.00000			6M821113
6778-	6M821113	110701	1	3 0.92388	110702	3	3 0.70711			6M821123
6779-	6M821123	110703	1	3 0.38268						
6780-	MPC	8211	4	-1.	110700	4	.0			6M821114
6781-	6M821114	110701	1	4 0.38268	110702	4	4 0.70711			6M821124
6782-	6M821124	110703	1	4 0.92388						
6783-	MPC	8211	5	-1.	110700	5	1.00000			6M821115
6784-	6M821115	110701	1	5 0.92388	110702	5	5 0.70711			6M821125
6785-	6M821125	110703	1	5 0.38268						
6786-	MPC	8211	6	-1.	110700	6	.0			6M821116
6787-	6M821116	110701	1	6 0.38268	110702	6	6 0.70711			6M821126
6788-	6M821126	110703	1	6 0.92388						
6789-	MPC	8212	1	-1.	110700	1	1.00000			6M821211
6790-	6M821211	110701	1	1 0.70711	110702	1	1 0.00000			6M821221
6791-	6M821221	110703	1	1 0.70711						
6792-	MPC	8212	2	-1.	110700	2	.0			6M821212
6793-	6M821212	110701	1	2 0.70711	110702	2	2 1.00000			6M821222
6794-	6M821222	110703	1	2 0.70711						
6795-	MPC	8212	3	-1.	110700	3	1.00000			6M821213
6796-	6M821213	110701	1	3 0.70711	110702	3	3 0.00000			6M821223
6797-	6M821223	110703	1	3 0.70711						
6798-	MPC	8212	4	-1.	110700	4	.0			6M821214
6799-	6M821214	110701	1	4 0.70711	110702	4	4 1.00000			6M821224
6800-	6M821224	110703	1	4 0.70711						

EXTERNAL TANK 4. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
5801-	1	8212	5	-1.	110700	5	1.00000	5	5821215	
5802-	1	110701	5	5 0.70711	110702		5 0.00000		5821225	
5803-	1	110703	6	-1.	110700	6	.0		5821216	
5804-	1	8212	6	6 0.70711	110702		6 1.00000		5821226	
5805-	1	110701	5	6 0.70711						
5806-	1	110703	1	-1.	110700	1	1.00000		5821311	
5807-	1	8213	1	1 0.38268	110702		1-0.70711		5821321	
5808-	1	110701	1	1-0.92388						
5809-	1	110703	2	-1.	110700	2	.0		5821312	
5810-	1	8213	2	2 0.92388	110702		2 0.70711		5821322	
5811-	1	110701	1	2-0.38268						
5812-	1	110703	3	-1.	110700	3	1.00000		5821313	
5813-	1	8213	3	3 0.38268	110702		3-0.70711		5821323	
5814-	1	110701	1	3-0.92388						
5815-	1	110703	4	-1.	110700	4	.0		5821314	
5816-	1	8213	4	4 0.92388	110702		4 0.70711		5821324	
5817-	1	110701	1	4-0.38268						
5818-	1	110703	5	-1.	110700	5	1.00000		5821315	
5819-	1	8213	5	5 0.38268	110702		5-0.70711		5821325	
5820-	1	110701	1	5-0.92388						
5821-	1	110703	6	-1.	110700	6	.0		5821316	
5822-	1	8213	6	6 0.92388	110702		6 0.70711		5821326	
5823-	1	110701	1	6-0.38268						
5824-	1	110703	1	-1.	110700	1	1.00000		5821411	
5825-	1	8214	1	1 0.00000	110702		1-1.00000		5821421	
5826-	1	110701	1	1-0.00000						
5827-	1	110703	2	-1.	110700	2	.0		5821412	
5828-	1	8214	2	2 1.00000	110702		2 0.00000		5821422	
5829-	1	110701	1	2-1.00000						
5830-	1	110703	3	-1.	110700	3	1.00000		5821413	
5831-	1	8214	3	3 0.00000	110702		3-1.00000		5821423	
5832-	1	110701	1	3-0.00000						
5833-	1	110703	4	-1.	110700	4	.0		5821414	
5834-	1	8214	4	4 1.00000	110702		4 0.00000		5821424	
5835-	1	110701	1	4-1.00000						
5836-	1	110703	5	-1.	110700	5	1.00000		5821415	
5837-	1	8214	5	5 0.00000	110702		5-1.00000		5821425	
5838-	1	110701	1	5-0.00000						
5839-	1	110703	6	-1.	110700	6	.0		5821416	
5840-	1	8214	6	6 1.00000	110702		6 0.00000		5821426	
5841-	1	110701	1	6-1.00000						
5842-	1	110703	1	-1.	110700	1	1.00000		5821511	
5843-	1	8215	1	1-0.38268	110702		1-0.70711		5821521	
5844-	1	110701	1	1 0.92388						
5845-	1	110703	2	-1.	110700	2	.0		5821512	
5846-	1	8215	2	2 0.92388	110702		2-0.70711		5821522	
5847-	1	110701	1	2-0.38268						
5848-	1	110703	3	-1.	110700	3	1.00000		5821513	
5849-	1	8215	3	3-0.38268	110702		3-0.70711		5821523	
5850-	1	110701	1							

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
6851-	CM821523		110703	3	0.92388					
6852-	MPC	8215	4	-1.	110700	4	.0			CM821514
6853-	CM821514		110701	4	0.92388	110702	4-0.70711			CM821524
6854-	CM821524		110703		4-0.38269					
6855-	MPC	8215	5	-1.	110700	5	1.00000			CM821515
6856-	CM821515		110701		5-0.38269	110702	5-0.70711			CM821525
6857-	CM821525		110703		5	0.92388				
6858-	MPC	8215	6	-1.	110700	6	.0			CM821516
6859-	CM821516		110701		6	0.92388	110702	6-0.70711		CM821526
6860-	CM821526		110703		6-0.38269					
6861-	MPC	8215	1	-1.	110700	1	1.00000			CM821611
6862-	CM821611		110701		1-0.70711	110702	1-0.00000			CM821621
6863-	CM821621		110703		1	0.70711				
6864-	MPC	8215	2	-1.	110700	2	.0			CM821612
6865-	CM821612		110701		2	0.70711	110702	2-1.00000		CM821622
6866-	CM821622		110703		2	0.70710				
6867-	MPC	8215	3	-1.	110700	3	1.00000			CM821613
6868-	CM821613		110701		3-0.70711	110702	3-0.00000			CM821623
6869-	CM821623		110703		3	0.70711				
6870-	MPC	8215	4	-1.	110700	4	.0			CM821614
6871-	CM821614		110701		4	0.70711	110702	4-1.00000		CM821624
6872-	CM821624		110703		4	0.70710				
6873-	MPC	8215	5	-1.	110700	5	1.00000			CM821615
6874-	CM821615		110701		5-0.70711	110702	5-0.00000			CM821625
6875-	CM821625		110703		5	0.70711				
6876-	MPC	8215	6	-1.	110700	6	.0			CM821616
6877-	CM821616		110701		6	0.70711	110702	6-1.00000		CM821626
6878-	CM821626		110703		6	0.70710				
6879-	MPC	8217	1	-1.	110700	1	1.00000			CM821711
6880-	CM821711		110701		1-0.92388	110702	1	0.70711		CM821721
6881-	CM821721		110703		1-0.38268					
6882-	MPC	8217	2	-1.	110700	2	.0			CM821712
6883-	CM821712		110701		2	0.38268	110702	2-0.70711		CM821722
6884-	CM821722		110703		2	0.92388				
6885-	MPC	8217	3	-1.	110700	3	1.00000			CM821713
6886-	CM821713		110701		3-0.92388	110702	3	0.70711		CM821723
6887-	CM821723		110703		3-0.38268					
6888-	MPC	8217	4	-1.	110700	4	.0			CM821714
6889-	CM821714		110701		4	0.38268	110702	4-0.70711		CM821724
6890-	CM821724		110703		4	0.92388				
6891-	MPC	8217	5	-1.	110700	5	1.00000			CM821715
6892-	CM821715		110701		5-0.92388	110702	5	0.70711		CM821725
6893-	CM821725		110703		5-0.38268					
6894-	MPC	8217	6	-1.	110700	6	.0			CM821716
6895-	CM821716		110701		6	0.38268	110702	6-0.70711		CM821726
6896-	CM821726		110703		6	0.92388				
6897-	MPC	8215	1	-1.	110700	1	1.00000			CM821811
6898-	CM821811		110701		1-1.00000	110702	1	1.00000		CM821821
6899-	CM821821		110703		1-1.00000					
6900-	MPC	8215	2	-1.	110700	2	.0			CM821812

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
6701- EM821812	1	2	110701	4	2	0.00000	110702	2	0.00000	EM821822
6702- EM821822	1	2	110703	4	2	0.00000				
6703- MPC	1	8212	3		-1.	110700	3	1.00000		EM821813
6704- EM821813	1	110701			3	-1.00000	110702	3	1.00000	EM821823
6705- EM821823	1	110703			3	-1.00000				
6706- MPC	1	8212	4		-1.	110700	4	.0		EM821814
6707- EM821814	1	110701			4	0.00000	110702	4	0.00000	EM821824
6708- EM821824	1	110703			4	0.00000				
6709- MPC	1	8212	5		-1.	110700	5	1.00000		EM821815
6710- EM821815	1	110701			5	-1.00000	110702	5	1.00000	EM821825
6711- EM821825	1	110703			5	-1.00000				
6712- MPC	1	8212	6		-1.	110700	6	.0		EM821816
6713- EM821816	1	110701			6	0.00000	110702	6	0.00000	EM821826
6714- EM821826	1	110703			6	0.00000				
6715- MPC	1	8230	1		-1.	110800	1	1.00000		EM823011
6716- EM823011	1	110801			1	1.00000	110802	1	1.00000	EM823021
6717- EM823021	1	110803			1	1.00000				
6718- MPC	1	8230	2		-1.	110800	2	.0		EM823012
6719- EM823012	1	110801			2	0.0	110802	2	0.0	EM823022
6720- EM823022	1	110803			2	0.0				
6721- MPC	1	8230	3		-1.	110800	3	1.00000		EM823013
6722- EM823013	1	110801			3	1.00000	110802	3	1.00000	EM823023
6723- EM823023	1	110803			3	1.00000				
6724- MPC	1	8230	4		-1.	110800	4	.0		EM823014
6725- EM823014	1	110801			4	0.0	110802	4	0.0	EM823024
6726- EM823024	1	110803			4	0.0				
6727- MPC	1	8230	5		-1.	110800	5	1.00000		EM823015
6728- EM823015	1	110801			5	1.00000	110802	5	1.00000	EM823025
6729- EM823025	1	110803			5	1.00000				
6730- MPC	1	8230	6		-1.	110800	6	.0		EM823016
6731- EM823016	1	110801			6	0.0	110802	6	0.0	EM823026
6732- EM823026	1	110803			6	0.0				
6733- MPC	1	8231	1		-1.	110900	1	1.00000		EM823111
6734- EM823111	1	110901			1	0.92368	110902	1	0.70711	EM823121
6735- EM823121	1	110903			1	0.38268				
6736- MPC	1	8231	2		-1.	110900	2	.0		EM823112
6737- EM823112	1	110901			2	0.38268	110902	2	0.70711	EM823122
6738- EM823122	1	110903			2	0.92368				
6739- MPC	1	8231	3		-1.	110900	3	1.00000		EM823113
6740- EM823113	1	110901			3	0.92368	110902	3	0.70711	EM823123
6741- EM823123	1	110903			3	0.38268				
6742- MPC	1	8231	4		-1.	110900	4	.0		EM823114
6743- EM823114	1	110901			4	0.38268	110902	4	0.70711	EM823124
6744- EM823124	1	110903			4	0.92368				
6745- MPC	1	8231	5		-1.	110900	5	1.00000		EM823115
6746- EM823115	1	110901			5	0.92368	110902	5	0.70711	EM823125
6747- EM823125	1	110903			5	0.38268				
6748- MPC	1	8231	6		-1.	110900	6	.0		EM823116
6749- EM823116	1	110901			6	0.38268	110902	6	0.70711	EM823126
6750- EM823126	1	110903			6	0.92368				

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
6391-	1	8232	1	-1.	110800	1	1.00000			
6392-	1	110801	1	1	110802	1	1.00000			
6393-	1	110803	1	1	110802	1	1.00000			
6394-	1	8232	2	-1.	110800	2	.0			
6395-	1	110801	2	2	110802	2	1.00000			
6396-	1	110803	2	2	110802	2	1.00000			
6397-	1	8232	3	-1.	110800	3	1.00000			
6398-	1	110801	3	3	110802	3	1.00000			
6399-	1	110803	3	3	110802	3	1.00000			
6400-	1	8232	4	-1.	110800	4	.0			
6401-	1	110801	4	4	110802	4	1.00000			
6402-	1	110803	4	4	110802	4	1.00000			
6403-	1	8232	5	-1.	110800	5	1.00000			
6404-	1	110801	5	5	110802	5	1.00000			
6405-	1	110803	5	5	110802	5	1.00000			
6406-	1	8232	6	-1.	110800	6	.0			
6407-	1	110801	6	6	110802	6	1.00000			
6408-	1	110803	6	6	110802	6	1.00000			
6409-	1	8232	1	-1.	110800	1	1.00000			
6410-	1	110801	1	1	110802	1	1.00000			
6411-	1	110803	1	1	110802	1	1.00000			
6412-	1	8232	2	-1.	110800	2	.0			
6413-	1	110801	2	2	110802	2	0.70711			
6414-	1	110803	2	2	110802	2	0.70711			
6415-	1	8232	3	-1.	110800	3	1.00000			
6416-	1	110801	3	3	110802	3	1.00000			
6417-	1	110803	3	3	110802	3	1.00000			
6418-	1	8232	4	-1.	110800	4	.0			
6419-	1	110801	4	4	110802	4	0.70711			
6420-	1	110803	4	4	110802	4	0.70711			
6421-	1	8232	5	-1.	110800	5	1.00000			
6422-	1	110801	5	5	110802	5	1.00000			
6423-	1	110803	5	5	110802	5	1.00000			
6424-	1	8232	6	-1.	110800	6	.0			
6425-	1	110801	6	6	110802	6	0.70711			
6426-	1	110803	6	6	110802	6	0.70711			
6427-	1	8232	1	-1.	110800	1	1.00000			
6428-	1	110801	1	1	110802	1	1.00000			
6429-	1	110803	1	1	110802	1	1.00000			
6430-	1	8232	2	-1.	110800	2	.0			
6431-	1	110801	2	2	110802	2	0.70711			
6432-	1	110803	2	2	110802	2	0.70711			
6433-	1	8232	3	-1.	110800	3	1.00000			
6434-	1	110801	3	3	110802	3	1.00000			
6435-	1	110803	3	3	110802	3	1.00000			
6436-	1	8232	4	-1.	110800	4	.0			
6437-	1	110801	4	4	110802	4	0.70711			
6438-	1	110803	4	4	110802	4	0.70711			
6439-	1	8232	5	-1.	110800	5	1.00000			
6440-	1	110801	5	5	110802	5	1.00000			
6441-	1	110803	5	5	110802	5	1.00000			
6442-	1	8232	6	-1.	110800	6	.0			
6443-	1	110801	6	6	110802	6	0.70711			
6444-	1	110803	6	6	110802	6	0.70711			
6445-	1	8232	1	-1.	110800	1	1.00000			
6446-	1	110801	1	1	110802	1	1.00000			
6447-	1	110803	1	1	110802	1	1.00000			
6448-	1	8232	2	-1.	110800	2	.0			
6449-	1	110801	2	2	110802	2	0.00000			
6450-	1	110803	2	2	110802	2	0.00000			
6451-	1	8232	3	-1.	110800	3	1.00000			
6452-	1	110801	3	3	110802	3	1.00000			
6453-	1	110803	3	3	110802	3	1.00000			
6454-	1	8232	4	-1.	110800	4	.0			
6455-	1	110801	4	4	110802	4	0.00000			
6456-	1	110803	4	4	110802	4	0.00000			
6457-	1	8232	5	-1.	110800	5	1.00000			
6458-	1	110801	5	5	110802	5	1.00000			
6459-	1	110803	5	5	110802	5	1.00000			
6460-	1	8232	6	-1.	110800	6	.0			
6461-	1	110801	6	6	110802	6	0.00000			
6462-	1	110803	6	6	110802	6	0.00000			
6463-	1	8232	1	-1.	110800	1	1.00000			
6464-	1	110801	1	1	110802	1	1.00000			
6465-	1	110803	1	1	110802	1	1.00000			
6466-	1	8232	2	-1.	110800	2	.0			
6467-	1	110801	2	2	110802	2	0.00000			
6468-	1	110803	2	2	110802	2	0.00000			
6469-	1	8232	3	-1.	110800	3	1.00000			
6470-	1	110801	3	3	110802	3	1.00000			
6471-	1	110803	3	3	110802	3	1.00000			
6472-	1	8232	4	-1.	110800	4	.0			
6473-	1	110801	4	4	110802	4	0.00000			
6474-	1	110803	4	4	110802	4	0.00000			
6475-	1	8232	5	-1.	110800	5	1.00000			
6476-	1	110801	5	5	110802	5	1.00000			
6477-	1	110803	5	5	110802	5	1.00000			
6478-	1	8232	6	-1.	110800	6	.0			
6479-	1	110801	6	6	110802	6	0.00000			
6480-	1	110803	6	6	110802	6	0.00000			
6481-	1	8232	1	-1.	110800	1	1.00000			
6482-	1	110801	1	1	110802	1	1.00000			
6483-	1	110803	1	1	110802	1	1.00000			
6484-	1	8232	2	-1.	110800	2	.0			
6485-	1	110801	2	2	110802	2	0.00000			
6486-	1	110803	2	2	110802	2	0.00000			
6487-	1	8232	3	-1.	110800	3	1.00000			
6488-	1	110801	3	3	110802	3	1.00000			
6489-	1	110803	3	3	110802	3	1.00000			
6490-	1	8232	4	-1.	110800	4	.0			
6491-	1	110801	4	4	110802	4	0.00000			
6492-	1	110803	4	4	110802	4	0.00000			
6493-	1	8232	5	-1.	110800	5	1.00000			
6494-	1	110801	5	5	110802	5	1.00000			
6495-	1	110803	5	5	110802	5	1.00000			
6496-	1	8232	6	-1.	110800	6	.0			
6497-	1	110801	6	6	110802	6	0.00000			
6498-	1	110803	6	6	110802	6	0.00000			
6499-	1	8232	1	-1.	110800	1	1.00000			
6500-	1	110801	1	1	110802	1	1.00000			

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
EM823425	110803	8234	6	5-0.00000	110800	6	.0			EM823416
EM823416	110801	8234	6	-1.	110800	6	6.00000			EM823426
EM823426	110803	8235	1	-1.	110800	1	1.00000			EM823511
EM823511	110801	8235	2	1-0.38268	110802	2	1-0.70711			EM823521
EM823521	110803	8235	2	1.0.92388	110800	2	.0			EM823512
EM823512	110801	8235	3	2.0.92388	110802	3	2-0.70711			EM823522
EM823522	110803	8235	3	2-0.38269	110800	3	1.00000			EM823513
EM823513	110801	8235	4	-1.	110800	4	.0			EM823514
EM823514	110803	8235	5	4.0.92388	110802	5	4-0.70711			EM823524
EM823524	110801	8235	6	4-0.38269	110800	6	1.00000			EM823515
EM823515	110803	8235	6	5-0.38268	110802	6	5-0.70711			EM823525
EM823525	110801	8235	6	5.0.92388	110800	6	.0			EM823516
EM823516	110803	8235	6	6.0.92388	110802	6	6-0.70711			EM823526
EM823526	110801	8236	1	-1.	110800	1	1.00000			EM823611
EM823611	110803	8236	2	1-0.70711	110802	2	1-0.00000			EM823621
EM823621	110801	8236	3	1.0.70711	110800	3	.0			EM823612
EM823612	110803	8236	3	2.0.70711	110802	3	2-1.00000			EM823622
EM823622	110801	8236	4	2.0.70711	110800	4	1.00000			EM823613
EM823613	110803	8236	5	-1.	110800	5	3-0.00000			EM823623
EM823623	110801	8236	6	3-0.70711	110802	6	.0			EM823614
EM823614	110803	8236	6	4.0.70711	110802	6	4-1.00000			EM823624
EM823624	110801	8236	6	4.0.70711	110800	6	1.00000			EM823615
EM823615	110803	8236	6	5-0.70711	110802	6	5-0.00000			EM823625
EM823625	110801	8236	6	5.0.70711	110800	6	.0			EM823616
EM823616	110803	8236	6	6.0.70711	110802	6	6-1.00000			EM823626
EM823626	110801	8237	1	-1.	110800	1	1.00000			EM823711
EM823711	110803	8237	2	1-0.92388	110802	2	1.0.70711			EM823721
EM823721	110801	8237	2	1-0.38268	110800	2	.0			EM823712
EM823712	110803	8237	3	2.0.38268	110802	3	2-0.70711			EM823722
EM823722	110801	8237	3	2.0.92388	110800	3	1.00000			EM823713
EM823713	110803	8237	3	-1.	110800	3	3.0.70711			EM823723
EM823723	110801	8237	4	3-0.92388	110802	4	.0			EM823714
EM823714	110803	8237	4	3-0.38268	110800	4	.0			

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
7351-	CMR23714	110801	4	0.38268	110802					CMR23724
7352-	CMR23724	110803	4	0.92388						
7353-	MPC	8237	5	-1.	110800	5	1.00000			CMR23715
7354-	CMR23715	110801	5	5-0.92388	110802		5 0.70711			CMR23725
7355-	CMR23725	110803	5	5-0.38268						
7356-	MPC	8237	6	-1.	110800	6	.0			CMR23716
7357-	CMR23716	110801	6	0.38268	110802		6-0.70711			CMR23726
7358-	CMR23726	110803	6	0.92388						
7359-	MPC	8238	1	-1.	110800	1	1.00000			CMR23811
7360-	CMR23811	110801	1	1-1.00000	110802		1 1.00000			CMR23821
7361-	CMR23821	110803	1	1-1.00000						
7362-	MPC	8238	2	-1.	110800	2	.0			CMR23812
7363-	CMR23812	110801	2	0.00000	110802		2-0.00000			CMR23822
7364-	CMR23822	110803	2	0.00000						
7365-	MPC	8238	3	-1.	110800	3	1.00000			CMR23813
7366-	CMR23813	110801	3	3-1.00000	110802		3 1.00000			CMR23823
7367-	CMR23823	110803	3	3-1.00000						
7368-	MPC	8238	4	-1.	110800	4	.0			CMR23814
7369-	CMR23814	110801	4	0.00000	110802		4-0.00000			CMR23824
7370-	CMR23824	110803	4	0.00000						
7371-	MPC	8238	5	-1.	110800	5	1.00000			CMR23815
7372-	CMR23815	110801	5	5-1.00000	110802		5 1.00000			CMR23825
7373-	CMR23825	110803	5	5-1.00000						
7374-	MPC	8238	6	-1.	110800	6	.0			CMR23816
7375-	CMR23816	110801	6	0.00000	110802		6-0.00000			CMR23826
7376-	CMR23826	110803	6	0.00000						
7377-	MPC	8250	1	-1.	110900	1	1.00000			CMR25011
7378-	CMR25011	110901	1	1.00000	110902		1 1.00000			CMR25021
7379-	CMR25021	110903	1	1.00000						
7380-	MPC	8250	2	-1.	110900	2	.0			CMR25012
7381-	CMR25012	110901	2	0.0	110902		2 0.0			CMR25022
7382-	CMR25022	110903	2	0.0						
7383-	MPC	8250	3	-1.	110900	3	1.00000			CMR25013
7384-	CMR25013	110901	3	3.1.00000	110902		3 1.00000			CMR25023
7385-	CMR25023	110903	3	3.1.00000						
7386-	MPC	8250	4	-1.	110900	4	.0			CMR25014
7387-	CMR25014	110901	4	0.0	110902		4 0.0			CMR25024
7388-	CMR25024	110903	4	0.0						
7389-	MPC	8250	5	-1.	110900	5	1.00000			CMR25015
7390-	CMR25015	110901	5	5.1.00000	110902		5 1.00000			CMR25025
7391-	CMR25025	110903	5	5.1.00000						
7392-	MPC	8250	6	-1.	110900	6	.0			CMR25016
7393-	CMR25016	110901	6	0.0	110902		6 0.0			CMR25026
7394-	CMR25026	110903	6	0.0						
7395-	MPC	8251	1	-1.	110900	1	1.00000			CMR25111
7396-	CMR25111	110901	1	0.92388	110902		1 0.70711			CMR25121
7397-	CMR25121	110903	1	0.38268						
7398-	MPC	8251	2	-1.	110900	2	.0			CMR25112
7399-	CMR25112	110901	2	0.38268	110902		2 0.70711			CMR25122
7400-	CMR25122	110903	2	0.92388						

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
7131-	1	8251	3	-1.	110900	3	1.00000			EM825113
7132-	1	110901	3	3 0.92388	110902		3 0.70711			EM825123
7133-	1	110903		3 0.38268						
7134-	1	8251	4	-1.	110900	4	.0			EM825114
7135-	1	110901	4	4 0.38268	110902		4 0.70711			EM825124
7136-	1	110903		4 0.92388						
7137-	1	8251	5	-1.	110900	5	1.00000			EM825115
7138-	1	110901	5	5 0.92388	110902		5 0.70711			EM825125
7139-	1	110903		5 0.38268						
7140-	1	8251	6	-1.	110900	6	.0			EM825116
7141-	1	110901	6	6 0.38268	110902		6 0.70711			EM825126
7142-	1	110903		6 0.92388						
7143-	1	8252	1	-1.	110900	1	1.00000			EM825211
7144-	1	110901	1	1 0.70711	110902		1 0.00000			EM825221
7145-	1	110903		1 -0.70711						
7146-	1	8252	2	-1.	110900	2	.0			EM825212
7147-	1	110901	2	2 0.70711	110902		2 1.00000			EM825222
7148-	1	110903		2 0.70711						
7149-	1	8252	3	-1.	110900	3	1.00000			EM825213
7150-	1	110901	3	3 0.70711	110902		3 0.00000			EM825223
7151-	1	110903		3 -0.70711						
7152-	1	8252	4	-1.	110900	4	.0			EM825214
7153-	1	110901	4	4 0.70711	110902		4 1.00000			EM825224
7154-	1	110903		4 0.70711						
7155-	1	8252	5	-1.	110900	5	1.00000			EM825215
7156-	1	110901	5	5 0.70711	110902		5 0.00000			EM825225
7157-	1	110903		5 -0.70711						
7158-	1	8252	6	-1.	110900	6	.0			EM825216
7159-	1	110901	6	6 0.70711	110902		6 1.00000			EM825226
7160-	1	110903		6 0.70711						
7161-	1	8253	1	-1.	110900	1	1.00000			EM825311
7162-	1	110901	1	1 0.38268	110902		1 -0.70711			EM825321
7163-	1	110903		1 -0.92388						
7164-	1	8253	2	-1.	110900	2	.0			EM825312
7165-	1	110901	2	2 0.92388	110902		2 0.70711			EM825322
7166-	1	110903		2 -0.38268						
7167-	1	8253	3	-1.	110900	3	1.00000			EM825313
7168-	1	110901	3	3 0.38268	110902		3 -0.70711			EM825323
7169-	1	110903		3 -0.92388						
7170-	1	8253	4	-1.	110900	4	.0			EM825314
7171-	1	110901	4	4 0.92388	110902		4 0.70711			EM825324
7172-	1	110903		4 -0.38268						
7173-	1	8253	5	-1.	110900	5	1.00000			EM825315
7174-	1	110901	5	5 0.38268	110902		5 -0.70711			EM825325
7175-	1	110903		5 -0.92388						
7176-	1	8253	6	-1.	110900	6	.0			EM825316
7177-	1	110901	6	6 0.92388	110902		6 0.70711			EM825326
7178-	1	110903		6 -0.38268						
7179-	1	8254	1	-1.	110900	1	1.00000			EM825411
7180-	1	110901	1	1 0.00000	110902		1 -1.00000			EM825421

S O R T E D B U L K D A T A E C H O

CARD	1	2	3	4	5	6	7	8	9	10
CARD	1	2	3	4	5	6	7	8	9	10
7151-	CM825421	110903	1-0.0000							
7152-	MPG	8254	-1.	110900	2					CM825412
7153-	CM825412	110901	2 1.00000	110902	2	0.00000				CM825422
7154-	CM825422	110903	2-1.00000							
7155-	MPG	8254	-1.	110900	3	1.00000				CM825413
7156-	CM825413	110901	3 0.00000	110902	3-1.00000					CM825423
7157-	CM825423	110903	3-0.00000							
7158-	MPG	8254	-1.	110900	4	0.00000				CM825414
7159-	CM825414	110901	4 1.00000	110902	4	0.00000				CM825424
7160-	CM825424	110903	4-1.00000							
7161-	MPG	8254	-1.	110900	5	1.00000				CM825415
7162-	CM825415	110901	5 0.00000	110902	5-1.00000					CM825425
7163-	CM825425	110903	5-0.00000							
7164-	MPG	8254	-1.	110900	6	0.00000				CM825416
7165-	CM825416	110901	6 1.00000	110902	6	0.00000				CM825426
7166-	CM825426	110903	6-1.00000							
7167-	MPG	8254	-1.	110900	1	1.00000				CM825511
7168-	CM825511	110901	1-0.38268	110902	1-0.70711					CM825521
7169-	CM825521	110903	1 0.92388							
7170-	MPG	8254	-1.	110900	2	0.00000				CM825512
7171-	CM825512	110901	2 0.92388	110902	2-0.70711					CM825522
7172-	CM825522	110903	2-0.38269							
7173-	MPG	8254	-1.	110900	3	1.00000				CM825513
7174-	CM825513	110901	3-0.38268	110902	3-0.70711					CM825523
7175-	CM825523	110903	3 0.92388							
7176-	MPG	8254	-1.	110900	4	0.00000				CM825514
7177-	CM825514	110901	4 0.92388	110902	4-0.70711					CM825524
7178-	CM825524	110903	4-0.38269							
7179-	MPG	8254	-1.	110900	5	1.00000				CM825515
7180-	CM825515	110901	5-0.38268	110902	5-0.70711					CM825525
7181-	CM825525	110903	5 0.92388							
7182-	MPG	8254	-1.	110900	6	0.00000				CM825516
7183-	CM825516	110901	6 0.92388	110902	6-0.70711					CM825526
7184-	CM825526	110903	6-0.38269							
7185-	MPG	8254	-1.	110900	1	1.00000				CM825611
7186-	CM825611	110901	1-0.70711	110902	1-0.00000					CM825621
7187-	CM825621	110903	1 0.70711							
7188-	MPG	8254	-1.	110900	2	0.00000				CM825612
7189-	CM825612	110901	2 0.70711	110902	2-1.00000					CM825622
7190-	CM825622	110903	2 0.70710							
7191-	MPG	8254	-1.	110900	3	1.00000				CM825613
7192-	CM825613	110901	3-0.70711	110902	3-0.00000					CM825623
7193-	CM825623	110903	3 0.70711							
7194-	MPG	8254	-1.	110900	4	0.00000				CM825614
7195-	CM825614	110901	4 0.70711	110902	4-1.00000					CM825624
7196-	CM825624	110903	4 0.70710							
7197-	MPG	8254	-1.	110900	5	1.00000				CM825615
7198-	CM825615	110901	5-0.70711	110902	5-0.00000					CM825625
7199-	CM825625	110903	5 0.70711							
7200-	MPG	8254	-1.	110900	6	0.00000				CM825616

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
7201-	CMR25616	110901	6	0.70711	110902	6	1.00000	9	CMR25626	
7202-	CMR25626	110903	6	0.70710						
7203-	MPG	8257	1	-1.	110900	1	1.00000		CMR25711	
7204-	CMR25711	110901	1	-0.92388	110902	1	0.70711		CMR25721	
7205-	CMR25721	110903	1	-0.38268						
7206-	MPG	8257	2	-1.	110900	2	.0		CMR25712	
7207-	CMR25712	110901	2	0.38268	110902	2	-0.70711		CMR25722	
7208-	CMR25722	110903	2	0.92388						
7209-	MPG	8257	3	-1.	110900	3	1.00000		CMR25713	
7210-	CMR25713	110901	3	-0.92388	110902	3	0.70711		CMR25723	
7211-	CMR25723	110903	3	-0.38268						
7212-	MPG	8257	4	-1.	110900	4	.0		CMR25714	
7213-	CMR25714	110901	4	0.38268	110902	4	-0.70711		CMR25724	
7214-	CMR25724	110903	4	0.92388						
7215-	MPG	8257	5	-1.	110900	5	1.00000		CMR25715	
7216-	CMR25715	110901	5	-0.92388	110902	5	0.70711		CMR25725	
7217-	CMR25725	110903	5	-0.38268						
7218-	MPG	8257	6	-1.	110900	6	.0		CMR25716	
7219-	CMR25716	110901	6	0.38268	110902	6	-0.70711		CMR25726	
7220-	CMR25726	110903	6	0.92388						
7221-	MPG	8257	1	-1.	110900	1	1.00000		CMR25811	
7222-	CMR25811	110901	1	-1.00000	110902	1	1.00000		CMR25821	
7223-	CMR25821	110903	1	-1.00000						
7224-	MPG	8257	2	-1.	110900	2	.0		CMR25812	
7225-	CMR25812	110901	2	0.00000	110902	2	-0.00000		CMR25822	
7226-	CMR25822	110903	2	0.00000						
7227-	MPG	8257	3	-1.	110900	3	1.00000		CMR25813	
7228-	CMR25813	110901	3	-1.00000	110902	3	1.00000		CMR25823	
7229-	CMR25823	110903	3	-1.00000						
7230-	MPG	8257	4	-1.	110900	4	.0		CMR25814	
7231-	CMR25814	110901	4	0.00000	110902	4	-0.00000		CMR25824	
7232-	CMR25824	110903	4	0.00000						
7233-	MPG	8257	5	-1.	110900	5	1.00000		CMR25815	
7234-	CMR25815	110901	5	-1.00000	110902	5	1.00000		CMR25825	
7235-	CMR25825	110903	5	-1.00000						
7236-	MPG	8257	6	-1.	110900	6	.0		CMR25816	
7237-	CMR25816	110901	6	0.00000	110902	6	-0.00000		CMR25826	
7238-	CMR25826	110903	6	0.00000						
7239-	MPG	8270	1	-1.	111000	1	1.00000		CMR27011	
7240-	CMR27011	111001	1	-1.00000	111002	1	1.00000		CMR27021	
7241-	CMR27021	111003	1	1.00000						
7242-	MPG	8270	2	-1.	111000	2	.0		CMR27012	
7243-	CMR27012	111001	2	0.0	111002	2	0.0		CMR27022	
7244-	CMR27022	111003	2	0.0						
7245-	MPG	8270	3	-1.	111000	3	1.00000		CMR27013	
7246-	CMR27013	111001	3	-1.00000	111002	3	1.00000		CMR27023	
7247-	CMR27023	111003	3	1.00000						
7248-	MPG	8270	4	-1.	111000	4	.0		CMR27014	
7249-	CMR27014	111001	4	0.0	111002	4	0.0		CMR27024	
7250-	CMR27024	111003	4	0.0						

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19. 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
7231-	1	8270	5	-1.	111000	5	1.00000	5	1.00000	24827015
7252-	1	111001	5	5	1.00000	111002	5	1.00000	24827025	
7253-	1	111003	6	5	1.00000					
7254-	1	8270	6	-1.	111000	6	0.0	0.0	24827016	
7255-	1	111001	6	6	0.0	111002	6	0.0	24827026	
7256-	1	111003	6	6	0.0					
7257-	1	8271	1	-1.	111000	1	1.00000	1	1.00000	24827111
7258-	1	111001	1	1	0.92388	111002	1	0.70711	24827121	
7259-	1	111003	1	1	0.38268					
7260-	1	8271	2	-1.	111000	2	0.0	0.0	24827112	
7261-	1	111001	2	2	0.38268	111002	2	0.70711	24827122	
7262-	1	111003	2	2	0.92388					
7263-	1	8271	3	-1.	111000	3	1.00000	3	1.00000	24827113
7264-	1	111001	3	3	0.92388	111002	3	0.70711	24827123	
7265-	1	111003	3	3	0.38268					
7266-	1	8271	4	-1.	111000	4	0.0	0.0	24827114	
7267-	1	111001	4	4	0.38268	111002	4	0.70711	24827124	
7268-	1	111003	4	4	0.92388					
7269-	1	8271	5	-1.	111000	5	1.00000	5	1.00000	24827115
7270-	1	111001	5	5	0.92388	111002	5	0.70711	24827125	
7271-	1	111003	5	5	0.38268					
7272-	1	8271	6	-1.	111000	6	0.0	0.0	24827116	
7273-	1	111001	6	6	0.38268	111002	6	0.70711	24827126	
7274-	1	111003	6	6	0.92388					
7275-	1	8272	1	-1.	111000	1	1.00000	1	1.00000	24827211
7276-	1	111001	1	1	0.70711	111002	1	0.00000	24827221	
7277-	1	111003	1	1	0.70711					
7278-	1	8272	2	-1.	111000	2	0.0	0.0	24827212	
7279-	1	111001	2	2	0.70711	111002	2	1.00000	24827222	
7280-	1	111003	2	2	0.70711					
7281-	1	8272	3	-1.	111000	3	1.00000	3	1.00000	24827213
7282-	1	111001	3	3	0.70711	111002	3	0.00000	24827223	
7283-	1	111003	3	3	0.70711					
7284-	1	8272	4	-1.	111000	4	0.0	0.0	24827214	
7285-	1	111001	4	4	0.70711	111002	4	1.00000	24827224	
7286-	1	111003	4	4	0.70711					
7287-	1	8272	5	-1.	111000	5	1.00000	5	1.00000	24827215
7288-	1	111001	5	5	0.70711	111002	5	0.00000	24827225	
7289-	1	111003	5	5	0.70711					
7290-	1	8272	6	-1.	111000	6	0.0	0.0	24827216	
7291-	1	111001	6	6	0.70711	111002	6	1.00000	24827226	
7292-	1	111003	6	6	0.70711					
7293-	1	8272	1	-1.	111000	1	1.00000	1	1.00000	24827311
7294-	1	111001	1	1	0.38268	111002	1	0.70711	24827321	
7295-	1	111003	1	1	0.92388					
7296-	1	8272	2	-1.	111000	2	0.0	0.0	24827312	
7297-	1	111001	2	2	0.92388	111002	2	0.70711	24827322	
7298-	1	111003	2	2	0.38268					
7299-	1	8272	3	-1.	111000	3	1.00000	3	1.00000	24827313
7300-	1	111001	3	3	0.38268	111002	3	0.70711	24827323	

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EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

S O R T E D B U L K D A T A E C H D										
CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
7351-	EM827612	111001	2 0.70711	111002	2-1.00000					EM827622
7352-	EM827622	111003	2 0.70710							
7353-	4PC	8276 3	-1.	111000 3	1.00000					EM827613
7354-	EM827613	111001	3-0.70711	111002	3-0.00000					EM827623
7355-	EM827623	111003	3 0.70711							
7356-	4PC	8276 4	-1.	111000 4	.0					EM827614
7357-	EM827614	111001	4 0.70711	111002	4-1.00000					EM827624
7358-	EM827624	111003	4 0.70710							
7359-	4PC	8276 5	-1.	111000 5	1.00000					EM827615
7360-	EM827615	111001	5-0.70711	111002	5-0.00000					EM827625
7361-	EM827625	111003	5 0.70711							
7362-	4PC	8276 6	-1.	111000 6	.0					EM827616
7363-	EM827616	111001	6 0.70711	111002	6-1.00000					EM827626
7364-	EM827626	111003	6 0.70710							
7365-	4PC	8277 1	-1.	111000 1	1.00000					EM827711
7366-	EM827711	111001	1-0.92389	111002	1 0.70711					EM827721
7367-	EM827721	111003	1-0.39268							
7368-	4PC	8277 2	-1.	111000 2	.0					EM827712
7369-	EM827712	111001	2 0.38258	111002	2-0.70711					EM827722
7370-	EM827722	111003	2 0.92388							
7371-	4PC	8277 3	-1.	111000 3	1.00000					EM827713
7372-	EM827713	111001	3-0.92389	111002	3 0.70711					EM827723
7373-	EM827723	111003	3-0.38268							
7374-	4PC	8277 4	-1.	111000 4	.0					EM827714
7375-	EM827714	111001	4 0.38258	111002	4-0.70711					EM827724
7376-	EM827724	111003	4 0.92389							
7377-	4PC	8277 5	-1.	111000 5	1.00000					EM827715
7378-	EM827715	111001	5-0.92389	111002	5 0.70711					EM827725
7379-	EM827725	111003	5-0.38268							
7380-	4PC	8277 6	-1.	111000 6	.0					EM827716
7381-	EM827716	111001	6 0.38258	111002	6-0.70711					EM827726
7382-	EM827726	111003	6 0.92388							
7383-	4PC	8278 1	-1.	111000 1	1.00000					EM827811
7384-	EM827811	111001	1-1.00000	111002	1 1.00000					EM827821
7385-	EM827821	111003	1-1.00000							
7386-	4PC	8278 2	-1.	111000 2	.0					EM827812
7387-	EM827812	111001	2 0.00000	111002	2-0.00000					EM827822
7388-	EM827822	111003	2 0.00000							
7389-	4PC	8278 3	-1.	111000 3	1.00000					EM827813
7390-	EM827813	111001	3-1.00000	111002	3 1.00000					EM827823
7391-	EM827823	111003	3-1.00000							
7392-	4PC	8278 4	-1.	111000 4	.0					EM827814
7393-	EM827814	111001	4 0.00000	111002	4-0.00000					EM827824
7394-	EM827824	111003	4 0.00000							
7395-	4PC	8278 5	-1.	111000 5	1.00000					EM827815
7396-	EM827815	111001	5-1.00000	111002	5 1.00000					EM827825
7397-	EM827825	111003	5-1.00000							
7398-	4PC	8278 6	-1.	111000 6	.0					EM827816
7399-	EM827816	111001	6 0.00000	111002	6-0.00000					EM827826
7400-	EM827826	111003	6 0.00000							

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SORTED BULK DATA ECHD

CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	2	3	4	5	6	7	8	9	10
7401-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7402-	8290	1	111101	1	1.00000	111102	1	1.00000	1	1.00000
7403-	8290	2	111101	2	-1.	111100	2	.0	2	0.0
7404-	8290	1	111101	1	2.0.0	111102	1	2.0.0	1	2.0.0
7405-	8290	1	111101	1	2.0.0	111102	1	2.0.0	1	2.0.0
7406-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7407-	8290	1	111101	1	3.1.00000	111102	1	3.1.00000	1	3.1.00000
7408-	8290	1	111101	1	3.1.00000	111102	1	3.1.00000	1	3.1.00000
7409-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7410-	8290	1	111101	1	4.0.0	111102	1	4.0.0	1	4.0.0
7411-	8290	1	111101	1	4.0.0	111102	1	4.0.0	1	4.0.0
7412-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7413-	8290	1	111101	1	5.1.00000	111102	1	5.1.00000	1	5.1.00000
7414-	8290	1	111101	1	5.1.00000	111102	1	5.1.00000	1	5.1.00000
7415-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7416-	8290	1	111101	1	6.0.0	111102	1	6.0.0	1	6.0.0
7417-	8290	1	111101	1	6.0.0	111102	1	6.0.0	1	6.0.0
7418-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7419-	8290	1	111101	1	1.0.38268	111102	1	1.0.38268	1	1.0.38268
7420-	8290	1	111101	1	1.0.38268	111102	1	1.0.38268	1	1.0.38268
7421-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7422-	8290	1	111101	1	2.0.38268	111102	1	2.0.38268	1	2.0.38268
7423-	8290	1	111101	1	2.0.38268	111102	1	2.0.38268	1	2.0.38268
7424-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7425-	8290	1	111101	1	3.0.92388	111102	1	3.0.92388	1	3.0.92388
7426-	8290	1	111101	1	3.0.92388	111102	1	3.0.92388	1	3.0.92388
7427-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7428-	8290	1	111101	1	4.0.38268	111102	1	4.0.38268	1	4.0.38268
7429-	8290	1	111101	1	4.0.38268	111102	1	4.0.38268	1	4.0.38268
7430-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7431-	8290	1	111101	1	5.0.92388	111102	1	5.0.92388	1	5.0.92388
7432-	8290	1	111101	1	5.0.92388	111102	1	5.0.92388	1	5.0.92388
7433-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7434-	8290	1	111101	1	6.0.38268	111102	1	6.0.38268	1	6.0.38268
7435-	8290	1	111101	1	6.0.38268	111102	1	6.0.38268	1	6.0.38268
7436-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7437-	8290	1	111101	1	1.0.70711	111102	1	1.0.70711	1	1.0.70711
7438-	8290	1	111101	1	1.0.70711	111102	1	1.0.70711	1	1.0.70711
7439-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7440-	8290	1	111101	1	2.0.70711	111102	1	2.0.70711	1	2.0.70711
7441-	8290	1	111101	1	2.0.70711	111102	1	2.0.70711	1	2.0.70711
7442-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7443-	8290	1	111101	1	3.0.70711	111102	1	3.0.70711	1	3.0.70711
7444-	8290	1	111101	1	3.0.70711	111102	1	3.0.70711	1	3.0.70711
7445-	8290	1	111101	1	-1.	111100	1	.0	1	.0
7446-	8290	1	111101	1	4.0.70711	111102	1	4.0.70711	1	4.0.70711
7447-	8290	1	111101	1	4.0.70711	111102	1	4.0.70711	1	4.0.70711
7448-	8290	1	111101	1	-1.	111100	1	1.00000	1	1.00000
7449-	8290	1	111101	1	5.0.70711	111102	1	5.0.70711	1	5.0.70711
7450-	8290	1	111101	1	5.0.70711	111102	1	5.0.70711	1	5.0.70711

EXTERNAL TANK W. FLUID
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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CM829225	111103	8292	6	5-0.70711	111100	6	0			CM829216
CM829216	111101	8292	6	6 0.70711	111102	6	1.00000			CM829226
CM829226	111103	8292	1	6 0.70711	111100	1	1.00000			CM829311
CM829311	111101	8292	1	1 0.38268	111102	1	1-0.70711			CM829321
CM829321	111103	8292	2	1-0.92388	111100	2	0			CM829312
CM829312	111101	8292	2	2 0.92388	111102	2	0.70711			CM829322
CM829322	111103	8292	3	2-0.38268	111100	3	1.00000			CM829313
CM829313	111101	8292	3	3 0.38268	111102	3	3-0.70711			CM829323
CM829323	111103	8292	4	3-0.92388	111100	4	0			CM829314
CM829314	111101	8292	4	4 0.92388	111102	4	0.70711			CM829324
CM829324	111103	8292	5	4-0.38268	111100	5	1.00000			CM829315
CM829315	111101	8292	5	5 0.38268	111102	5	5-0.70711			CM829325
CM829325	111103	8292	6	5-0.92388	111100	6	0			CM829316
CM829316	111101	8292	6	6 0.92388	111102	6	0.70711			CM829326
CM829326	111103	8292	1	6-0.38268	111100	1	1.00000			CM829411
CM829411	111101	8292	1	1 0.00000	111102	1	1-1.00000			CM829421
CM829421	111103	8292	2	1-0.00000	111100	2	0			CM829412
CM829412	111101	8292	2	2 1.00000	111102	2	0.00000			CM829422
CM829422	111103	8292	3	2-1.00000	111100	3	1.00000			CM829413
CM829413	111101	8292	3	3 0.00000	111102	3	3-1.00000			CM829423
CM829423	111103	8292	4	3-0.00000	111100	4	0			CM829414
CM829414	111101	8292	4	4 1.00000	111102	4	0.00000			CM829424
CM829424	111103	8292	5	4-1.00000	111100	5	1.00000			CM829415
CM829415	111101	8292	5	5 0.00000	111102	5	5-1.00000			CM829425
CM829425	111103	8292	6	5-0.00000	111100	6	0			CM829416
CM829416	111101	8292	6	6 1.00000	111102	6	0.00000			CM829426
CM829426	111103	8292	1	6-1.00000	111100	1	1.00000			CM829511
CM829511	111101	8292	1	1-0.38268	111102	1	1-0.70711			CM829521
CM829521	111103	8292	2	1 0.92388	111100	2	0			CM829512
CM829512	111101	8292	2	2 0.92388	111102	2	2-0.70711			CM829522
CM829522	111103	8292	3	2-0.38268	111100	3	1.00000			CM829513
CM829513	111101	8292	3	3 0.38268	111102	3	3-0.70711			CM829523
CM829523	111103	8292	4	3 0.92388	111100	4	0			CM829514
CM829514	111101	8292	4	4 1.00000	111102	4	0.00000			

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CJUNT										
7501-	CM829514	111101	4	0.92388	111102	4-0.70711				CM829524
7502-	CM829524	111103	4	0.38269						
7503-	MPC	8295	5	-1.	111100	5	1.00000			CM829515
7504-	CM829515	111101	5	0.38268	111102	5-0.70711				CM829525
7505-	CM829525	111103	5	0.92388						
7506-	MPC	8295	6	-1.	111100	6	.0			CM829516
7507-	CM829516	111101	6	0.92388	111102	6-0.70711				CM829526
7508-	CM829526	111103	6	0.38269						
7509-	MPC	8295	1	-1.	111100	1	1.00000			CM829611
7510-	CM829611	111101	1	0.70711	111102	1-0.00000				CM829621
7511-	CM829621	111103	1	0.70711						
7512-	MPC	8295	2	-1.	111100	2	.0			CM829612
7513-	CM829612	111101	2	0.70711	111102	2-1.00000				CM829622
7514-	CM829622	111103	2	0.70710						
7515-	MPC	8295	3	-1.	111100	3	1.00000			CM829613
7516-	CM829613	111101	3	0.70711	111102	3-0.00000				CM829623
7517-	CM829623	111103	3	0.70711						
7518-	MPC	8295	4	-1.	111100	4	.0			CM829614
7519-	CM829614	111101	4	0.70711	111102	4-1.00000				CM829624
7520-	CM829624	111103	4	0.70710						
7521-	MPC	8295	5	-1.	111100	5	1.00000			CM829615
7522-	CM829615	111101	5	0.70711	111102	5-0.00000				CM829625
7523-	CM829625	111103	5	0.70711						
7524-	MPC	8295	6	-1.	111100	6	.0			CM829616
7525-	CM829616	111101	6	0.70711	111102	6-1.00000				CM829626
7526-	CM829626	111103	6	0.70710						
7527-	MPC	8297	1	-1.	111100	1	1.00000			CM829711
7528-	CM829711	111101	1	0.92388	111102	1 0.70711				CM829721
7529-	CM829721	111103	1	0.38268						
7530-	MPC	8297	2	-1.	111100	2	.0			CM829712
7531-	CM829712	111101	2	0.38268	111102	2-0.70711				CM829722
7532-	CM829722	111103	2	0.92388						
7533-	MPC	8297	3	-1.	111100	3	1.00000			CM829713
7534-	CM829713	111101	3	0.92388	111102	3 0.70711				CM829723
7535-	CM829723	111103	3	0.38268						
7536-	MPC	8297	4	-1.	111100	4	.0			CM829714
7537-	CM829714	111101	4	0.38268	111102	4-0.70711				CM829724
7538-	CM829724	111103	4	0.92388						
7539-	MPC	8297	5	-1.	111100	5	1.00000			CM829715
7540-	CM829715	111101	5	0.92388	111102	5 0.70711				CM829725
7541-	CM829725	111103	5	0.38268						
7542-	MPC	8297	6	-1.	111100	6	.0			CM829716
7543-	CM829716	111101	6	0.38268	111102	6-0.70711				CM829726
7544-	CM829726	111103	6	0.92388						
7545-	MPC	8297	1	-1.	111100	1	1.00000			CM829811
7546-	CM829811	111101	1	1.00000	111102	1 1.00000				CM829821
7547-	CM829821	111103	1	1.00000						
7548-	MPC	8297	2	-1.	111100	2	.0			CM829812
7549-	CM829812	111101	2	0.00000	111102	2-0.00000				CM829822
7550-	CM829822	111103	2	0.00000						

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CARD	1	2	3	4	5	6	7	8	9	10
COUNT	1	8298	3	-1.	11100	3	1.00000	3	1.00000	10
7551-	MPG	1	8298	3	-1.	11100	3	1.00000	3	1.00000
7552-	CM829813		11101		3-1.00000	11102		3	1.00000	CM829813
7553-	CM829823		11103		3-1.00000					CM829823
7554-	MPG	1	8298	4	-1.	11100	4	.0		CM829814
7555-	CM829814		11101		4 0.00000	11102		4-0.00000		CM829824
7556-	CM829824		11103		4 0.00000					
7557-	MPG	1	8298	5	-1.	11100	5	1.00000		CM829815
7558-	CM829815		11101		5-1.00000	11102		5 1.00000		CM829825
7559-	CM829825		11103		5-1.00000					
7560-	MPG	1	8298	6	-1.	11100	6	.0		CM829816
7561-	CM829816		11101		6 0.00000	11102		6-0.00000		CM829826
7562-	CM829826		11103		6 0.00000					
7563-	MPG	1	8298	1	1.	8294	3	-1.		
7564-	MPG	1	8298	3	1.	8294	2	1.		
7565-	MPG	1	8310	1	-1.	111200	1	1.00000		CM831011
7566-	CM831011		111201		1 1.00000	111202		1 1.00000		CM831021
7567-	CM831021		111203		1 1.00000					
7568-	MPG	1	8310	2	-1.	111200	2	.0		CM831012
7569-	CM831012		111201		2 0.0	111202		2 0.0		CM831022
7570-	CM831022		111203		2 0.0					
7571-	MPG	1	8310	3	-1.	111200	3	1.00000		CM831013
7572-	CM831013		111201		3 1.00000	111202		3 1.00000		CM831023
7573-	CM831023		111203		3 1.00000					
7574-	MPG	1	8310	4	-1.	111200	4	.0		CM831014
7575-	CM831014		111201		4 0.0	111202		4 0.0		CM831024
7576-	CM831024		111203		4 0.0					
7577-	MPG	1	8310	5	-1.	111200	5	1.00000		CM831015
7578-	CM831015		111201		5 1.00000	111202		5 1.00000		CM831025
7579-	CM831025		111203		5 1.00000					
7580-	MPG	1	8310	6	-1.	111200	6	.0		CM831016
7581-	CM831016		111201		6 0.0	111202		6 0.0		CM831026
7582-	CM831026		111203		6 0.0					
7583-	MPG	1	8311	1	-1.	111200	1	1.00000		CM831111
7584-	CM831111		111201		1 0.92388	111202		1 0.70711		CM831121
7585-	CM831121		111203		1 0.38268					
7586-	MPG	1	8311	2	-1.	111200	2	.0		CM831112
7587-	CM831112		111201		2 0.38268	111202		2 0.70711		CM831122
7588-	CM831122		111203		2 0.92388					
7589-	MPG	1	8311	3	-1.	111200	3	1.00000		CM831113
7590-	CM831113		111201		3 0.92388	111202		3 0.70711		CM831123
7591-	CM831123		111203		3 0.38268					
7592-	MPG	1	8311	4	-1.	111200	4	.0		CM831114
7593-	CM831114		111201		4 0.38268	111202		4 0.70711		CM831124
7594-	CM831124		111203		4 0.92388					
7595-	MPG	1	8311	5	-1.	111200	5	1.00000		CM831115
7596-	CM831115		111201		5 0.92388	111202		5 0.70711		CM831125
7597-	CM831125		111203		5 0.38268					
7598-	MPG	1	8311	6	-1.	111200	6	.0		CM831116
7599-	CM831116		111201		6 0.38268	111202		6 0.70711		CM831126
7600-	CM831126		111203		6 0.92388					

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CARD	1	2	3	4	5	6	7	8	9	10
CJUNT	1	8312	1	-1.	111200	1	1.00000			EM831211
7501-	1	111201	1	1-0.70711	111202		1.00000			EM831221
7502-	1	111203	1	1-0.70711						EM831212
7503-	1	8312	2	-1.	111200	2	.0			EM831222
7504-	1	111201	2	2 0.70711	111202		2 1.00000			
7505-	1	111203	2	2 0.70711						
7506-	1	8312	3	-1.	111200	3	1.00000			EM831213
7507-	1	111201	3	3 0.70711	111202		3 0.00000			EM831223
7508-	1	111203	3	3-0.70711						
7509-	1	8312	4	-1.	111200	4	.0			EM831214
7510-	1	111201	4	4 0.70711	111202		4 1.00000			EM831224
7511-	1	111203	4	4 0.70711						
7512-	1	8312	5	-1.	111200	5	1.00000			EM831215
7513-	1	111201	5	5 0.70711	111202		5 0.00000			EM831225
7514-	1	111203	5	5-0.70711						
7515-	1	8312	6	-1.	111200	6	.0			EM831216
7516-	1	111201	6	6 0.70711	111202		6 1.00000			EM831226
7517-	1	111203	6	6 0.70711						
7518-	1	8312	1	-1.	111200	1	1.00000			EM831311
7519-	1	111201	1	1 0.38268	111202		1-0.70711			EM831321
7520-	1	111203	1	1-0.92388						
7521-	1	8312	2	-1.	111200	2	.0			EM831312
7522-	1	111201	2	2 0.92388	111202		2 0.70711			EM831322
7523-	1	111203	2	2-0.38268						
7524-	1	8312	3	-1.	111200	3	1.00000			EM831313
7525-	1	111201	3	3 0.38268	111202		3-0.70711			EM831323
7526-	1	111203	3	3-0.92388						
7527-	1	8312	4	-1.	111200	4	.0			EM831314
7528-	1	111201	4	4 0.92388	111202		4 0.70711			EM831324
7529-	1	111203	4	4-0.38268						
7530-	1	8312	5	-1.	111200	5	1.00000			EM831315
7531-	1	111201	5	5 0.38268	111202		5-0.70711			EM831325
7532-	1	111203	5	5-0.92388						
7533-	1	8312	6	-1.	111200	6	.0			EM831316
7534-	1	111201	6	6 0.92388	111202		6 0.70711			EM831326
7535-	1	111203	6	6-0.38268						
7536-	1	8312	1	-1.	111200	1	1.00000			EM831411
7537-	1	111201	1	1 0.00000	111202		1-1.00000			EM831421
7538-	1	111203	1	1-0.00000						
7539-	1	8312	2	-1.	111200	2	.0			EM831412
7540-	1	111201	2	2 1.00000	111202		2 0.00000			EM831422
7541-	1	111203	2	2-1.00000						
7542-	1	8312	3	-1.	111200	3	1.00000			EM831413
7543-	1	111201	3	3 0.00000	111202		3-1.00000			EM831423
7544-	1	111203	3	3-0.00000						
7545-	1	8312	4	-1.	111200	4	.0			EM831414
7546-	1	111201	4	4 1.00000	111202		4 0.00000			EM831424
7547-	1	111203	4	4-1.00000						
7548-	1	8312	5	-1.	111200	5	1.00000			EM831415
7549-	1	111201	5	5 0.00000	111202		5-1.00000			EM831425
7550-	1	111203	5	5-0.00000						

S O R T E D B U L K D A T A E C H O

CARD	COUNT	1	2	3	4	5	6	7	8	9	10
7631-	7631-	1	1	111203	5-0.00000	111200	6	0	0.00000	0	0
7652-	7652-	1	1	8314	6	111201	6	0	0.00000	0	0
7653-	7653-	1	1	111201	6	111201	6	0	0.00000	0	0
7654-	7654-	1	1	111203	6	111203	6	0	0.00000	0	0
7655-	7655-	1	1	8315	1	111200	1	1.00000	1-0.70711	0	0
7656-	7656-	1	1	111201	1	1-0.38268	111202	1-0.70711	1-0.70711	0	0
7657-	7657-	1	1	111203	2	1 0-92388	2	0	0.00000	0	0
7658-	7658-	1	1	8315	2	111200	2	0	0.00000	0	0
7659-	7659-	1	1	111201	2	2 0.92388	111202	2-0.70711	2-0.70711	0	0
7660-	7660-	1	1	111203	3	2-0.38269	3	0	0.00000	0	0
7661-	7661-	1	1	8315	3	111200	3	1.00000	3-0.70711	0	0
7662-	7662-	1	1	111201	3	3-0.38268	111202	3-0.70711	3-0.70711	0	0
7663-	7663-	1	1	111203	4	3 0.92388	4	0	0.00000	0	0
7664-	7664-	1	1	8315	4	111200	4	0	0.00000	0	0
7665-	7665-	1	1	111201	4	4 0.92388	111202	4-0.70711	4-0.70711	0	0
7666-	7666-	1	1	111203	5	4-0.38269	5	0	0.00000	0	0
7667-	7667-	1	1	8315	5	111200	5	1.00000	5-0.70711	0	0
7668-	7668-	1	1	111201	5	5-0.38268	111202	5-0.70711	5-0.70711	0	0
7669-	7669-	1	1	111203	6	5 0.92388	6	0	0.00000	0	0
7670-	7670-	1	1	8315	6	111200	6	0	0.00000	0	0
7671-	7671-	1	1	111201	6	6 0.92388	111202	6-0.70711	6-0.70711	0	0
7672-	7672-	1	1	111203	7	6-0.38269	7	0	0.00000	0	0
7673-	7673-	1	1	8315	7	111200	7	1.00000	7-0.70711	0	0
7674-	7674-	1	1	111201	7	7-0.70711	111202	7-0.70711	7-0.70711	0	0
7675-	7675-	1	1	111203	8	1 0.70711	8	0	0.00000	0	0
7676-	7676-	1	1	8315	8	111200	8	0	0.00000	0	0
7677-	7677-	1	1	111201	8	111200	8	0	0.00000	0	0
7678-	7678-	1	1	111203	9	2 0.70711	9	0	0.00000	0	0
7679-	7679-	1	1	8315	9	2 0.70710	9	0	0.00000	0	0
7680-	7680-	1	1	111201	9	3-0.70711	111202	3-0.00000	3-0.00000	0	0
7681-	7681-	1	1	111203	10	3 0.70711	10	0	0.00000	0	0
7682-	7682-	1	1	8315	10	111200	10	0	0.00000	0	0
7683-	7683-	1	1	111201	10	111200	10	0	0.00000	0	0
7684-	7684-	1	1	111203	11	4 0.70711	111202	4-1.00000	4-1.00000	0	0
7685-	7685-	1	1	8315	11	4 0.70710	111202	4-1.00000	4-1.00000	0	0
7686-	7686-	1	1	111201	11	5-0.70711	111202	5-0.00000	5-0.00000	0	0
7687-	7687-	1	1	111203	12	5 0.70711	12	0	0.00000	0	0
7688-	7688-	1	1	8315	12	111200	12	0	0.00000	0	0
7689-	7689-	1	1	111201	12	6 0.70711	111202	6-1.00000	6-1.00000	0	0
7690-	7690-	1	1	111203	13	6 0.70710	13	0	0.00000	0	0
7691-	7691-	1	1	8315	13	111200	13	1.00000	1-0.00000	0	0
7692-	7692-	1	1	111201	13	1-0.92388	111202	1 0.70711	1 0.70711	0	0
7693-	7693-	1	1	111203	14	1-0.38268	14	0	0.00000	0	0
7694-	7694-	1	1	8315	14	2 0.38268	14	0	0.00000	0	0
7695-	7695-	1	1	111201	14	2 0.38268	14	0	0.00000	0	0
7696-	7696-	1	1	111203	15	2 0.92388	15	0	0.00000	0	0
7697-	7697-	1	1	8315	15	111200	15	1.00000	1-0.00000	0	0
7698-	7698-	1	1	111201	15	3-0.92388	111202	3 0.70711	3 0.70711	0	0
7699-	7699-	1	1	111203	16	3-0.38268	16	0	0.00000	0	0
7700-	7700-	1	1	8315	16	111200	16	0	0.00000	0	0

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CJUNT										
7731-	EM831714		111201	4	0.38268	111202	4-0.70711			EM831724
7732-	EM831724		111203	4	0.92388					
7733-	MPC	8317	5	-1.		111200	5	1.00000		EM831715
7734-	EM831715		111201	5-0.92388	111202	5	0.70711			EM831725
7735-	EM831725		111203	5-0.38268						
7736-	MPC	8317	6	-1.	111200	6	.0			EM831716
7737-	EM831716		111201	6	0.38268	111202	6-0.70711			EM831726
7738-	EM831726		111203	6	0.92388					
7739-	MPC	8318	1	-1.	111200	1	1.00000			EM831811
7740-	EM831811		111201	1-1.00000	111202	1	1.00000			EM831821
7741-	EM831821		111203	1-1.00000						
7742-	MPC	8318	2	-1.	111200	2	.0			EM831812
7743-	EM831812		111201	2	0.00000	111202	2-0.00000			EM831822
7744-	EM831822		111203	2	0.00000					
7745-	MPC	8318	3	-1.	111200	3	1.00000			EM831813
7746-	EM831813		111201	3-1.00000	111202	3	1.00000			EM831823
7747-	EM831823		111203	3-1.00000						
7748-	MPC	8318	4	-1.	111200	4	.0			EM831814
7749-	EM831814		111201	4	0.00000	111202	4-0.00000			EM831824
7750-	EM831824		111203	4	0.00000					
7751-	MPC	8318	5	-1.	111200	5	1.00000			EM831815
7752-	EM831815		111201	5-1.00000	111202	5	1.00000			EM831825
7753-	EM831825		111203	5-1.00000						
7754-	MPC	8318	6	-1.	111200	6	.0			EM831816
7755-	EM831816		111201	6	0.00000	111202	6-0.00000			EM831826
7756-	EM831826		111203	6	0.00000					
7757-	MPC	8330	1	-1.	111300	1	1.00000			EM833011
7758-	EM833011		111301	1	1.00000	111302	1	1.00000		EM833021
7759-	EM833021		111303	1	1.00000					
7760-	MPC	8330	2	-1.	111300	2	.0			EM833012
7761-	EM833012		111301	2	0.0	111302	2	0.0		EM833022
7762-	EM833022		111303	2	0.0					
7763-	MPC	8330	3	-1.	111300	3	1.00000			EM833013
7764-	EM833013		111301	3	1.00000	111302	3	1.00000		EM833023
7765-	EM833023		111303	3	1.00000					
7766-	MPC	8330	4	-1.	111300	4	.0			EM833014
7767-	EM833014		111301	4	0.0	111302	4	0.0		EM833024
7768-	EM833024		111303	4	0.0					
7769-	MPC	8330	5	-1.	111300	5	1.00000			EM833015
7770-	EM833015		111301	5	1.00000	111302	5	1.00000		EM833025
7771-	EM833025		111303	5	1.00000					
7772-	MPC	8330	6	-1.	111300	6	.0			EM833016
7773-	EM833016		111301	6	0.0	111302	6	0.0		EM833026
7774-	EM833026		111303	6	0.0					
7775-	MPC	8331	1	-1.	111300	1	1.			EM833111
7776-	EM833111		111301	1	.98079	111302	1	.92388		EM833121
7777-	EM833121		111303	1	.83147					
7778-	MPC	8331	2	-1.	111300	2	0.0			EM833112
7779-	EM833112		111301	2	.19509	111302	2	.38268		EM833122
7780-	EM833122		111303	2	.55557					

SORTED BULK DATA ECHO

[illegible]

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
7301-	6M833421	111303	1	-	.98079					
7302-	MPC	8334	2	-1		111300	2	0.0		64833412
7303-	6M833412	111301	2		.83147	111302	2	.92388		64833422
7304-	6M833422	111303	2		.19509					
7305-	MPC	8334	3	-1		111300	3	1.		6M833413
7305-	6M833413	111301	3		.55557	111302	3	-.38268		6M833423
7306-	6M833423	111303	3		98079					
7308-	MPC	8334	4	-1		111300	4	0.0		6M833414
7307-	6M833414	111301	4		.83147	111302	4	.92380		6M833424
7310-	6M833424	111303	4		.19509					
7311-	MPC	8334	5	-1		111300	5	1.		6M833415
7312-	6M833415	111301	5		.55557	111302	5	-.38268		6M833425
7313-	6M833425	111303	5		98079					
7314-	MPC	8334	6	-1		111300	6	0.0		6M833416
7315-	6M833416	111301	6		.83147	111302	6	.92388		6M833426
7316-	6M833426	111303	6		.19509					
7317-	MPC	8335	1	-1		111300	1	1.00000		6M833511
7319-	6M833511	111301			0.38268	111302		1-0.70711		6M833521
7319-	6M833521	111303			1-0.92388					
7320-	MPC	8335	2	-1		111300	2	.0		6M833512
7321-	6M833512	111301			2.0.92388	111302		2.0.70711		6M833522
7322-	6M833522	111303			2-0.38268					
7323-	MPC	8335	3	-1		111300	3	1.00000		6M833513
7324-	6M833513	111301			3.0.38268	111302		3-0.70711		6M833523
7325-	6M833523	111303			3-0.92388					
7326-	MPC	8335	4	-1		111300	4	.0		6M833514
7327-	6M833514	111301			4.0.92388	111302		4.0.70711		6M833524
7328-	6M833524	111303			4-0.38268					
7329-	MPC	8335	5	-1		111300	5	1.00000		6M833515
7330-	6M833515	111301			5.0.38268	111302		5-0.70711		6M833525
7331-	6M833525	111303			5-0.92388					
7332-	MPC	8335	6	-1		111300	6	.0		6M833516
7333-	6M833516	111301			6.0.92388	111302		6.0.70711		6M833526
7334-	6M833526	111303			6-0.38268					
7335-	MPC	8336	1	-1		111300	1	1.00000		6M833611
7336-	6M833611	111301			1.0.00000	111302		1-1.00000		6M833621
7337-	6M833621	111303			1-0.00000					
7338-	MPC	8336	2	-1		111300	2	.0		6M833612
7339-	6M833612	111301			2.1.00000	111302		2.0.00000		6M833622
7340-	6M833622	111303			2-1.00000					
7341-	MPC	8336	3	-1		111300	3	1.00000		6M833613
7342-	6M833613	111301			3.0.00000	111302		3-1.00000		6M833623
7343-	6M833623	111303			3-0.00000					
7344-	MPC	8336	4	-1		111300	4	.0		6M833614
7345-	6M833614	111301			4.1.00000	111302		4.0.00000		6M833624
7345-	6M833624	111303			4-1.00000					
7347-	MPC	8336	5	-1		111300	5	1.00000		6M833615
7348-	6M833615	111301			5.0.00000	111302		5-1.00000		6M833625
7349-	6M833625	111303			5-0.00000					
7350-	MPC	8336	6	-1		111300	6	.0		6M833616

JULY 19, 1974 NASTRAN 5/13/72

EXTERNAL TANK 4, FLUID
MONIC REDUCTION

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
7851-	CM833616	111301	6	1.00000	111302	6	0.00000			CM833626
7852-	CM833626	111303	6	1.00000						
7853-	MPG	8337	1	-1.	111300	1	1.00000			CM833711
7854-	CM833711	111301	1	0.38268	111302	1	0.70711			CM833721
7855-	CM833721	111303	1	0.92388						
7856-	MPG	8337	2	-1.	111300	2	.0			CM833712
7857-	CM833712	111301	2	0.92388	111302	2	0.70711			CM833722
7858-	CM833722	111303	2	0.38268						
7859-	MPG	8337	3	-1.	111300	3	1.00000			CM833713
7860-	CM833713	111301	3	0.38268	111302	3	0.70711			CM833723
7861-	CM833723	111303	3	0.92388						
7862-	MPG	8337	4	-1.	111300	4	.0			CM833714
7863-	CM833714	111301	4	0.92388	111302	4	0.70711			CM833724
7864-	CM833724	111303	4	0.38268						
7865-	MPG	8337	5	-1.	111300	5	1.00000			CM833715
7866-	CM833715	111301	5	0.38268	111302	5	0.70711			CM833725
7867-	CM833725	111303	5	0.92388						
7868-	MPG	8337	6	-1.	111300	6	.0			CM833716
7869-	CM833716	111301	6	0.92388	111302	6	0.70711			CM833726
7870-	CM833726	111303	6	0.38268						
7871-	MPG	8336	1	-1.	111300	1	1.00000			CM833811
7872-	CM833811	111301	1	0.70711	111302	1	0.00000			CM833821
7873-	CM833821	111303	1	0.70711						
7874-	MPG	8338	2	-1.	111300	2	.0			CM833812
7875-	CM833812	111301	2	0.70711	111302	2	1.00000			CM833822
7876-	CM833822	111303	2	0.70710						
7877-	MPG	8338	3	-1.	111300	3	1.00000			CM833813
7878-	CM833813	111301	3	0.70711	111302	3	0.00000			CM833823
7879-	CM833823	111303	3	0.70711						
7880-	MPG	8338	4	-1.	111300	4	.0			CM833814
7881-	CM833814	111301	4	0.70711	111302	4	1.00000			CM833824
7882-	CM833824	111303	4	0.70710						
7883-	MPG	8338	5	-1.	111300	5	1.00000			CM833815
7884-	CM833815	111301	5	0.70711	111302	5	0.00000			CM833825
7885-	CM833825	111303	5	0.70711						
7886-	MPG	8338	6	-1.	111300	6	.0			CM833816
7887-	CM833816	111301	6	0.70711	111302	6	1.00000			CM833826
7888-	CM833826	111303	6	0.70710						
7889-	MPG	8339	1	-1.	111300	1	1.00000			CM833911
7890-	CM833911	111301	1	0.92388	111302	1	0.70711			CM833921
7891-	CM833921	111303	1	0.38268						
7892-	MPG	8339	2	-1.	111300	2	.0			CM833912
7893-	CM833912	111301	2	0.38268	111302	2	0.70711			CM833922
7894-	CM833922	111303	2	0.92388						
7895-	MPG	8339	3	-1.	111300	3	1.00000			CM833913
7896-	CM833913	111301	3	0.92388	111302	3	0.70711			CM833923
7897-	CM833923	111303	3	0.38268						
7898-	MPG	8339	4	-1.	111300	4	.0			CM833914
7899-	CM833914	111301	4	0.38268	111302	4	0.70711			CM833924
7900-	CM833924	111303	4	0.92388						

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
GROUP										
7301-	1	8339	5	-1.	111300	5	1.00000			EM833915
7302-		111301		5-0.92388	111302		0.70711			EM833925
7303-		111303		5-0.38268						
7304-	1	8339	6	-1.	111300	6	.0			EM833916
7305-		111301		6 0.38268	111302		6-0.70711			EM833926
7306-		111303		6 0.92388						
7307-	1	8340	1	-1.	111300	1	1.00000			EM834011
7308-		111301		1-1.00000	111302		1 1.00000			EM834021
7309-		111303		1-1.00000						
7310-	1	8340	2	-1.	111300	2	.0			EM834012
7311-		111301		2 0.00000	111302		2-0.00000			EM834022
7312-		111303		2 0.00000						
7313-	1	8340	3	-1.	111300	3	1.00000			EM834013
7314-		111301		3-1.00000	111302		3 1.00000			EM834023
7315-		111303		3-1.00000						
7316-	1	8340	4	-1.	111300	4	.0			EM834014
7317-		111301		4 0.00000	111302		4-0.00000			EM834024
7318-		111303		4 0.00000						
7319-	1	8340	5	-1.	111300	5	1.00000			EM834015
7320-		111301		5-1.00000	111302		5 1.00000			EM834025
7321-		111303		5-1.00000						
7322-	1	8340	6	-1.	111300	6	.0			EM834016
7323-		111301		6 0.00000	111302		6-0.00000			EM834026
7324-		111303		6 0.00000						
7325-	1	8341	1	1.	8336	3	-1.			
7326-	1	8341	3	1.	8336	2	1.			
7327-	1	8355	1	1.	8352	1	-1.			
7328-	1	8359	3	1.	8352	2	.197328			EM83592
7329-		8352	3	-.980338						
7330-	1	8360	1	1.	8355	1	-1.			
7331-	1	8360	3	1.	8355	2	.197328			EM83602
7332-		8355	3	-.980338						
7333-	1	8370	1	-1.	111400	1	1.00000			EM837011
7334-		111401		1 1.00000	111402		1 1.00000			EM837021
7335-		111403		1 1.00000						
7336-	1	8370	2	-1.	111400	2	1.00000			EM837012
7337-		111401		2 1.00000	111402		2 1.00000			EM837022
7338-		111403		2 1.00000						
7339-	1	8370	3	-1.	111400	3	.0			EM837013
7340-		111401		3 0.0	111402		3 0.0			EM837023
7341-		111403		3 0.0						
7342-	1	8370	4	-1.	111400	4	.0			EM837014
7343-		111401		4 0.0	111402		4 0.0			EM837024
7344-		111403		4 0.0						
7345-	1	8370	5	-1.	111400	5	.0			EM837015
7346-		111401		5 0.0	111402		5 0.0			EM837025
7347-		111403		5 0.0						
7348-	1	8370	6	-1.	111400	6	1.00000			EM837016
7349-		111401		6 1.00000	111402		6 1.00000			EM837026
7350-		111403		6 1.00000						

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CA90										
CUINT										
7951-	1		8371	1	-1.	111400	1	1.00000		CM837111
7952-			111401		1 0.92388	111402		1 0.70711		CM837121
7953-			111403		1 0.38268					
7954-	1		8371	2	-1.	111400	2	1.00000		CM837112
7955-			111401		2 0.92388	111402		2 0.70711		CM837122
7956-			111403		2 0.38268					
7957-	1		8371	3	-1.	111400	3	.0		CM837113
7958-			111401		3 0.38268	111402		3 0.70711		CM837123
7959-			111403		3 0.92388					
7960-	1		8371	4	-1.	111400	4	.0		CM837114
7961-			111401		4 0.38268	111402		4 0.70711		CM837124
7962-			111403		4 0.92388					
7963-	1		8371	5	-1.	111400	5	.0		CM837115
7964-			111401		5 0.38268	111402		5 0.70711		CM837125
7965-			111403		5 0.92388					
7966-	1		8371	6	-1.	111400	6	1.00000		CM837116
7967-			111401		6 0.92388	111402		6 0.70711		CM837126
7968-			111403		6 0.38268					
7969-	1		8372	1	-1.	111400	1	1.00000		CM837211
7970-			111401		1 0.70711	111402		1 0.00000		CM837221
7971-			111403		1-0.70711					
7972-	1		8372	2	-1.	111400	2	1.00000		CM837212
7973-			111401		2 0.70711	111402		2 0.00000		CM837222
7974-			111403		2-0.70711					
7975-	1		8372	3	-1.	111400	3	.0		CM837213
7976-			111401		3 0.70711	111402		3 1.00000		CM837223
7977-			111403		3 0.70711					
7978-	1		8372	4	-1.	111400	4	.0		CM837214
7979-			111401		4 0.70711	111402		4 1.00000		CM837224
7980-			111403		4 0.70711					
7981-	1		8372	5	-1.	111400	5	.0		CM837215
7982-			111401		5 0.70711	111402		5 1.00000		CM837225
7983-			111403		5 0.70711					
7984-	1		8372	6	-1.	111400	6	1.00000		CM837216
7985-			111401		6 0.70711	111402		6 0.00000		CM837226
7986-			111403		6-0.70711					
7987-	1		8372	1	-1.	111400	1	1.00000		CM837311
7988-			111401		1 0.38268	111402		1-0.70711		CM837321
7989-			111403		1-0.92388					
7990-	1		8372	2	-1.	111400	2	1.00000		CM837312
7991-			111401		2 0.38268	111402		2-0.70711		CM837322
7992-			111403		2-0.92388					
7993-	1		8372	3	-1.	111400	3	.0		CM837313
7994-			111401		3 0.92388	111402		3 0.70711		CM837323
7995-			111403		3-0.38268					
7996-	1		8372	4	-1.	111400	4	.0		CM837314
7997-			111401		4 0.92388	111402		4 0.70711		CM837324
7998-			111403		4-0.38268					
7999-	1		8372	5	-1.	111400	5	.0		CM837315
9900-			111401		5 0.92388	111402		5 0.70711		CM837325

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
9031-	CM837325	111403	5-0.38268							
9032-	MP8	8372	6							CM837316
9033-	CM837316	111401	6	111400	6	1.00000				CM837326
9034-	CM837326	111403		6-0.38268	111402	6-0.70711				
9035-	MP8	8374	1	6-0.92388						
9036-	CM837411	111401	1	-1.	111400	1	1.00000			CM837411
9037-	CM837421	111403		1-0.00000	111402	1-1.00000				CM837421
9038-	MP8	8374	2	-1.	111400	2	1.00000			CM837412
9039-	CM837412	111401		2-0.00000	111402	2-1.00000				CM837422
9040-	CM837422	111403		2-0.00000						
9041-	MP8	8374	3	-1.	111400	3	.0			CM837413
9042-	CM837413	111401		3-1.00000	111402	3-0.00000				CM837423
9043-	CM837423	111403		3-1.00000						
9044-	MP8	8374	4	-1.	111400	4	.0			CM837414
9045-	CM837414	111401		4-1.00000	111402	4-0.00000				CM837424
9046-	CM837424	111403		4-1.00000						
9047-	MP8	8374	5	-1.	111400	5	.0			CM837415
9048-	CM837415	111401		5-1.00000	111402	5-0.00000				CM837425
9049-	CM837425	111403		5-1.00000						
9050-	MP8	8374	6	-1.	111400	6	1.00000			CM837416
9051-	CM837416	111401		6-0.00000	111402	6-1.00000				CM837426
9052-	CM837426	111403		6-0.00000						
9053-	MP8	8375	1	-1.	111400	1	1.00000			CM837511
9054-	CM837511	111401		1-0.38268	111402	1-0.70711				CM837521
9055-	CM837521	111403		1-0.92388						
9056-	MP8	8375	2	-1.	111400	2	1.00000			CM837512
9057-	CM837512	111401		2-0.38268	111402	2-0.70711				CM837522
9058-	CM837522	111403		2-0.92388						
9059-	MP8	8375	3	-1.	111400	3	.0			CM837513
9060-	CM837513	111401		3-0.92388	111402	3-0.70711				CM837523
9061-	CM837523	111403		3-0.38269						
9062-	MP8	8375	4	-1.	111400	4	.0			CM837514
9063-	CM837514	111401		4-0.92388	111402	4-0.70711				CM837524
9064-	CM837524	111403		4-0.38269						
9065-	MP8	8375	5	-1.	111400	5	.0			CM837515
9066-	CM837515	111401		5-0.92388	111402	5-0.70711				CM837525
9067-	CM837525	111403		5-0.38269						
9068-	MP8	8375	6	-1.	111400	6	1.00000			CM837516
9069-	CM837516	111401		6-0.38268	111402	6-0.70711				CM837526
9070-	CM837526	111403		6-0.92388						
9071-	MP8	8376	1	-1.	111400	1	1.00000			CM837611
9072-	CM837611	111401		1-0.70711	111402	1-0.00000				CM837621
9073-	CM837621	111403		1-0.70711						
9074-	MP8	8376	2	-1.	111400	2	1.00000			CM837612
9075-	CM837612	111401		2-0.70711	111402	2-0.00000				CM837622
9076-	CM837622	111403		2-0.70711						
9077-	MP8	8376	3	-1.	111400	3	.0			CM837613
9078-	CM837613	111401		3-0.70711	111402	3-1.00000				CM837623
9079-	CM837623	111403		3-0.70710						
9080-	MP8	8376	4	-1.	111400	4	.0			CM837614

EXTERNAL TANK W. FLUID
ADNIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
9031-	1	111401	4	0.70711	111402	4-1.00000				CM837624
9032-	1	111403	4	0.70710						CM837625
9033-	1	8376	5	-1.	111400	5	0			CM837615
9034-	1	111401	5	0.70711	111402	5-1.00000				CM837625
9035-	1	111403	5	0.70710						CM837616
9036-	1	8376	6	-1.	111400	6	1.00000			CM837626
9037-	1	111401	6	0.70711	111402	6-0.00000				CM837616
9038-	1	111403	6	0.70711						CM837626
9039-	1	8377	1	-1.	111400	1	1.00000			CM837711
9040-	1	111401	1	0.92388	111402	1 0.70711				CM837721
9041-	1	111403	1	0.38268						CM837721
9042-	1	8377	2	-1.	111400	2	1.00000			CM837712
9043-	1	111401	2	0.92388	111402	2 0.70711				CM837722
9044-	1	111403	2	0.38268						CM837722
9045-	1	8377	3	-1.	111400	3	0			CM837713
9046-	1	111401	3	0.38268	111402	3-0.70711				CM837723
9047-	1	111403	3	0.92388						CM837723
9048-	1	8377	4	-1.	111400	4	0			CM837714
9049-	1	111401	4	0.38268	111402	4-0.70711				CM837724
9050-	1	111403	4	0.92388						CM837724
9051-	1	8377	5	-1.	111400	5	0			CM837715
9052-	1	111401	5	0.38268	111402	5-0.70711				CM837725
9053-	1	111403	5	0.92388						CM837725
9054-	1	8377	6	-1.	111400	6	1.00000			CM837716
9055-	1	111401	6	0.92388	111402	6 0.70711				CM837726
9056-	1	111403	6	0.38268						CM837726
9057-	1	8378	1	-1.	111400	1	1.00000			CM837811
9058-	1	111401	1	1.00000	111402	1 1.00000				CM837821
9059-	1	111403	1	1.00000						CM837821
9060-	1	8378	2	-1.	111400	2	1.00000			CM837812
9061-	1	111401	2	1.00000	111402	2 1.00000				CM837822
9062-	1	111403	2	1.00000						CM837822
9063-	1	8378	3	-1.	111400	3	0			CM837813
9064-	1	111401	3	0.00000	111402	3-0.00000				CM837823
9065-	1	111403	3	0.00000						CM837823
9066-	1	8378	4	-1.	111400	4	0			CM837814
9067-	1	111401	4	0.00000	111402	4-0.00000				CM837824
9068-	1	111403	4	0.00000						CM837824
9069-	1	8378	5	-1.	111400	5	0			CM837815
9070-	1	111401	5	0.00000	111402	5-0.00000				CM837825
9071-	1	111403	5	0.00000						CM837825
9072-	1	8378	6	-1.	111400	6	1.00000			CM837816
9073-	1	111401	6	1.00000	111402	6 1.00000				CM837826
9074-	1	111403	6	1.00000						CM837826
9075-	1	8390	1	-1.	111500	1	1.00000			CM839011
9076-	1	111501	1	1.00000	111502	1 1.00000				CM839021
9077-	1	111503	1	1.00000						CM839021
9078-	1	8390	2	-1.	111500	2	1.00000			CM839012
9079-	1	111501	2	1.00000	111502	2 1.00000				CM839022
9080-	1	111503	2	1.00000						CM839022

ORIGINAL PAGE IS
OF POOR QUALITY

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
COUNT										
8101-	1	8390	3	-1.	111500	3	0	0	0	0
8102-	1	8390	3	0.0	111502	3	0.0	0	0	0
8103-	1	8390	4	-1.	111500	4	0	0	0	0
8104-	1	8390	4	0.0	111502	4	0.0	0	0	0
8105-	1	8390	5	-1.	111500	5	0	0	0	0
8106-	1	8390	5	0.0	111502	5	0.0	0	0	0
8107-	1	8390	6	-1.	111500	6	1.00000	0	0	0
8108-	1	8390	6	0.0	111502	6	1.00000	0	0	0
8109-	1	8390	1	-1.	111500	1	1.00000	0	0	0
8110-	1	8390	1	0.0	111502	1	0.70711	0	0	0
8111-	1	8390	2	-1.	111500	2	1.00000	0	0	0
8112-	1	8390	2	0.0	111502	2	0.70711	0	0	0
8113-	1	8390	3	-1.	111500	3	0	0	0	0
8114-	1	8390	3	0.0	111502	3	0.70711	0	0	0
8115-	1	8390	4	-1.	111500	4	0	0	0	0
8116-	1	8390	4	0.0	111502	4	0.70711	0	0	0
8117-	1	8390	5	-1.	111500	5	0	0	0	0
8118-	1	8390	5	0.0	111502	5	0.70711	0	0	0
8119-	1	8390	6	-1.	111500	6	1.00000	0	0	0
8120-	1	8390	6	0.0	111502	6	0.70711	0	0	0
8121-	1	8390	1	-1.	111500	1	1.00000	0	0	0
8122-	1	8390	1	0.0	111502	1	0.70711	0	0	0
8123-	1	8390	2	-1.	111500	2	1.00000	0	0	0
8124-	1	8390	2	0.0	111502	2	0.70711	0	0	0
8125-	1	8390	3	-1.	111500	3	0	0	0	0
8126-	1	8390	3	0.0	111502	3	0.70711	0	0	0
8127-	1	8390	4	-1.	111500	4	0	0	0	0
8128-	1	8390	4	0.0	111502	4	0.70711	0	0	0
8129-	1	8390	5	-1.	111500	5	0	0	0	0
8130-	1	8390	5	0.0	111502	5	0.70711	0	0	0
8131-	1	8390	6	-1.	111500	6	1.00000	0	0	0
8132-	1	8390	6	0.0	111502	6	0.70711	0	0	0
8133-	1	8390	1	-1.	111500	1	1.00000	0	0	0
8134-	1	8390	1	0.0	111502	1	0.00000	0	0	0
8135-	1	8390	2	-1.	111500	2	1.00000	0	0	0
8136-	1	8390	2	0.0	111502	2	0.00000	0	0	0
8137-	1	8390	3	-1.	111500	3	0	0	0	0
8138-	1	8390	3	0.0	111502	3	1.00000	0	0	0
8139-	1	8390	4	-1.	111500	4	0	0	0	0
8140-	1	8390	4	0.0	111502	4	1.00000	0	0	0
8141-	1	8390	5	-1.	111500	5	0	0	0	0
8142-	1	8390	5	0.0	111502	5	1.00000	0	0	0
8143-	1	8390	6	-1.	111500	6	1.00000	0	0	0
8144-	1	8390	6	0.0	111502	6	0.00000	0	0	0
8145-	1	8390	1	-1.	111500	1	1.00000	0	0	0
8146-	1	8390	1	0.0	111502	1	0.00000	0	0	0
8147-	1	8390	2	-1.	111500	2	1.00000	0	0	0
8148-	1	8390	2	0.0	111502	2	0.00000	0	0	0
8149-	1	8390	3	-1.	111500	3	0	0	0	0
8150-	1	8390	3	0.0	111502	3	1.00000	0	0	0

Volume II

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
9151-	2M839321	111503	8392	2	1-0.92388	111500	2	1.00000		2M839312
9152-	MPC				-1.					2M839322
9153-	2M839312	111501	111501	2	2 0.38268	111502		2-0.70711		
9154-	2M839322	111503	111503		2-0.92388					
9155-	MPC	8392	3		-1.	111500	3	.0		2M839313
9156-	2M839313	111501	111501		3 0.92388	111502		3 0.70711		2M839323
9157-	2M839323	111503	111503		3-0.38268					
9158-	MPC	8392	4		-1.	111500	4	.0		2M839314
9159-	2M839314	111501	111501		4 0.92388	111502		4 0.70711		2M839324
9160-	2M839324	111503	111503		4-0.38268					
9161-	MPC	8392	5		-1.	111500	5	.0		2M839315
9162-	2M839315	111501	111501		5 0.92388	111502		5 0.70711		2M839325
9163-	2M839325	111503	111503		5-0.38268					
9164-	MPC	8392	6		-1.	111500	6	1.00000		2M839316
9165-	2M839316	111501	111501		6 0.38268	111502		6-0.70711		2M839326
9166-	2M839326	111503	111503		6-0.92388					
9167-	MPC	8392	1		-1.	111500	1	1.00000		2M839411
9168-	2M839411	111501	111501		1 0.00000	111502		1-1.00000		2M839421
9169-	2M839421	111503	111503		1-0.00000					
9170-	MPC	8392	2		-1.	111500	2	1.00000		2M839412
9171-	2M839412	111501	111501		2 0.00000	111502		2-1.00000		2M839422
9172-	2M839422	111503	111503		2-0.00000					
9173-	MPC	8392	3		-1.	111500	3	.0		2M839413
9174-	2M839413	111501	111501		3 1.00000	111502		3 0.00000		2M839423
9175-	2M839423	111503	111503		3-1.00000					
9176-	MPC	8392	4		-1.	111500	4	.0		2M839414
9177-	2M839414	111501	111501		4 1.00000	111502		4 0.00000		2M839424
9178-	2M839424	111503	111503		4-1.00000					
9179-	MPC	8392	5		-1.	111500	5	.0		2M839415
9180-	2M839415	111501	111501		5 1.00000	111502		5 0.00000		2M839425
9181-	2M839425	111503	111503		5-1.00000					
9182-	MPC	8392	6		-1.	111500	6	1.00000		2M839416
9183-	2M839416	111501	111501		6 0.00000	111502		6-1.00000		2M839426
9184-	2M839426	111503	111503		6-0.00000					
9185-	MPC	8392	1		-1.	111500	1	1.00000		2M839511
9186-	2M839511	111501	111501		1-0.38268	111502		1-0.70711		2M839521
9187-	2M839521	111503	111503		1 0.92388					
9188-	MPC	8392	2		-1.	111500	2	1.00000		2M839512
9189-	2M839512	111501	111501		2-0.38268	111502		2-0.70711		2M839522
9190-	2M839522	111503	111503		2 0.92388					
9191-	MPC	8392	3		-1.	111500	3	.0		2M839513
9192-	2M839513	111501	111501		3 0.92388	111502		3-0.70711		2M839523
9193-	2M839523	111503	111503		3-0.38268					
9194-	MPC	8392	4		-1.	111500	4	.0		2M839514
9195-	2M839514	111501	111501		4 0.92388	111502		4-0.70711		2M839524
9196-	2M839524	111503	111503		4-0.38268					
9197-	MPC	8392	5		-1.	111500	5	.0		2M839515
9198-	2M839515	111501	111501		5 0.92388	111502		5-0.70711		2M839525
9199-	2M839525	111503	111503		5-0.38268					
9200-	MPC	8392	6		-1.	111500	6	1.00000		2M839516

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
9201- CME39516	111501	6-0.38268	111502	6-0.70711	9	10				
9202- CME39526	111503	6 0.92388								
9203- MPC	8396 1	-1.	111500 1	1.00000						
9204- CME39611	111501	1-0.70711	111502	1-0.00000						
9205- CME39621	111503	1 0.70711								
9206- MPC	8396 2	-1.	111500 2	1.00000						
9207- CME39612	111501	2-0.70711	111502	2-0.00000						
9208- CME39622	111503	2 0.70711								
9209- MPC	8396 3	-1.	111500 3	.0						
9210- CME39613	111501	3 0.70711	111502	3-1.00000						
9211- CME39623	111503	3 0.70710								
9212- MPC	8396 4	-1.	111500 4	.0						
9213- CME39614	111501	4 0.70711	111502	4-1.00000						
9214- CME39624	111503	4 0.70710								
9215- MPC	8396 5	-1.	111500 5	.0						
9216- CME39615	111501	5 0.70711	111502	5-1.00000						
9217- CME39625	111503	5 0.70710								
9218- MPC	8396 6	-1.	111500 6	1.00000						
9219- CME39616	111501	6-0.70711	111502	6-0.00000						
9220- CME39626	111503	6 0.70711								
9221- MPC	8397 1	-1.	111500 1	1.00000						
9222- CME39711	111501	1-0.92388	111502	1 0.70711						
9223- CME39721	111503	1-0.38268								
9224- MPC	8397 2	-1.	111500 2	1.00000						
9225- CME39712	111501	2-0.92388	111502	2 0.70711						
9226- CME39722	111503	2-0.38268								
9227- MPC	8397 3	-1.	111500 3	.0						
9228- CME39713	111501	3 0.38268	111502	3-0.70711						
9229- CME39723	111503	3 0.92388								
9230- MPC	8397 4	-1.	111500 4	.0						
9231- CME39714	111501	4 0.38268	111502	4-0.70711						
9232- CME39724	111503	4 0.92388								
9233- MPC	8397 5	-1.	111500 5	.0						
9234- CME39715	111501	5 0.38268	111502	5-0.70711						
9235- CME39725	111503	5 0.92388								
9236- MPC	8397 6	-1.	111500 6	1.00000						
9237- CME39716	111501	6-0.92388	111502	6 0.70711						
9238- CME39726	111503	6-0.38268								
9239- MPC	8398 1	-1.	111500 1	1.00000						
9240- CME39811	111501	1-1.00000	111502	1 1.00000						
9241- CME39821	111503	1-1.00000								
9242- MPC	8398 2	-1.	111500 2	1.00000						
9243- CME39812	111501	2-1.00000	111502	2 1.00000						
9244- CME39822	111503	2-1.00000								
9245- MPC	8398 3	-1.	111500 3	.0						
9246- CME39813	111501	3 0.00000	111502	3-0.00000						
9247- CME39823	111503	3 0.00000								
9248- MPC	8398 4	-1.	111500 4	.0						
9249- CME39814	111501	4 0.00000	111502	4-0.00000						
9250- CME39824	111503	4 0.00000								

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CARD	1	2	3	4	5	6	7	8	9	10
8251- MPC	8398	5	-1.	111500	5	0	0	0	0	0
8252- CM839815	111501	5	0.00000	111502	5	0	0	0	0	0
8253- CM839825	111503	5	0.00000	111502	5	0	0	0	0	0
8254- MPC	8398	6	-1.	111500	6	1	0	0	0	0
8255- CM839816	111501	6	-1.00000	111502	6	1	0	0	0	0
8256- CM839826	111503	6	-1.00000	111502	6	1	0	0	0	0
8257- MPC	8410	1	-1.	111600	1	1	0	0	0	0
8258- CM841011	111601	1	1.00000	111602	1	1	0	0	0	0
8259- CM841021	111603	1	1.00000	111602	1	1	0	0	0	0
8260- MPC	8410	2	-1.	111600	2	1	0	0	0	0
8261- CM841012	111601	2	1.00000	111602	2	1	0	0	0	0
8262- CM841022	111603	2	1.00000	111602	2	1	0	0	0	0
8263- MPC	8410	3	-1.	111600	3	0	0	0	0	0
8264- CM841013	111601	3	0.0	111602	3	0	0	0	0	0
8265- CM841023	111603	3	0.0	111602	3	0	0	0	0	0
8266- MPC	8410	4	-1.	111600	4	0	0	0	0	0
8267- CM841014	111601	4	0.0	111602	4	0	0	0	0	0
8268- CM841024	111603	4	0.0	111602	4	0	0	0	0	0
8269- MPC	8410	5	-1.	111600	5	0	0	0	0	0
8270- CM841015	111601	5	0.0	111602	5	0	0	0	0	0
8271- CM841025	111603	5	0.0	111602	5	0	0	0	0	0
8272- MPC	8410	6	-1.	111600	6	1	0	0	0	0
8273- CM841016	111601	6	1.00000	111602	6	1	0	0	0	0
8274- CM841026	111603	6	1.00000	111602	6	1	0	0	0	0
8275- MPC	8411	1	-1.	111600	1	1	0	0	0	0
8276- CM841111	111601	1	0.92388	111602	1	0	7	0	7	1
8277- CM841121	111603	1	0.38268	111602	1	0	7	0	7	1
8278- MPC	8411	2	-1.	111600	2	1	0	0	0	0
8279- CM841112	111601	2	0.92388	111602	2	0	7	0	7	1
8280- CM841122	111603	2	0.38268	111602	2	0	7	0	7	1
8281- MPC	8411	3	-1.	111600	3	0	7	0	7	1
8282- CM841113	111601	3	0.38268	111602	3	0	7	0	7	1
8283- CM841123	111603	3	0.92388	111602	3	0	7	0	7	1
8284- MPC	8411	4	-1.	111600	4	0	7	0	7	1
8285- CM841114	111601	4	0.38268	111602	4	0	7	0	7	1
8286- CM841124	111603	4	0.92388	111602	4	0	7	0	7	1
8287- MPC	8411	5	-1.	111600	5	0	7	0	7	1
8288- CM841115	111601	5	0.38268	111602	5	0	7	0	7	1
8289- CM841125	111603	5	0.92388	111602	5	0	7	0	7	1
8290- MPC	8411	6	-1.	111600	6	1	0	0	0	0
8291- CM841116	111601	6	0.92388	111602	6	0	7	0	7	1
8292- CM841126	111603	6	0.38268	111602	6	0	7	0	7	1
8293- MPC	8412	1	-1.	111600	1	1	0	0	0	0
8294- CM841211	111601	1	0.70711	111602	1	0	0	0	0	0
8295- CM841221	111603	1	0.70711	111602	1	0	0	0	0	0
8296- MPC	8412	2	-1.	111600	2	1	0	0	0	0
8297- CM841212	111601	2	0.70711	111602	2	0	0	0	0	0
8298- CM841222	111603	2	0.70711	111602	2	0	0	0	0	0
8299- MPC	8412	3	-1.	111600	3	0	7	0	7	1
8300- CM841213	111601	3	0.70711	111602	3	0	7	0	7	1

EXTERNAL-TANK W. FLUID
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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
8101E	EM841223	111603	3	0.70711						
8102-	MPC	8412	4	-1.	111600	4	.0			EM841214
8103-	EM841214	111601		4	0.70711	111602	4	1.00000		EM841224
8104-	EM841224	111603		4	0.70711					
8105-	MPC	8412	5	-1.	111600	5	.0			EM841215
8106-	EM841215	111601		5	0.70711	111602	5	1.00000		EM841225
8107-	EM841225	111603		5	0.70711					
8108-	MPC	8412	6	-1.	111600	6	1.00000			EM841216
8109-	EM841216	111601		6	0.70711	111602	6	0.00000		EM841226
8110-	EM841226	111603		6	0.70711					
8111-	MPC	8412	1	-1.	111600	1	1.00000			EM841311
8112-	EM841311	111601		1	0.38268	111602	1	0.00000		EM841321
8113-	EM841321	111603		1	0.92388					
8114-	MPC	8412	2	-1.	111600	2	1.00000			EM841312
8115-	EM841312	111601		2	0.38268	111602	2	0.00000		EM841322
8116-	EM841322	111603		2	0.92388					
8117-	MPC	8412	3	-1.	111600	3	.0			EM841313
8118-	EM841313	111601		3	0.92388	111602	3	0.70711		EM841323
8119-	EM841323	111603		3	0.38268					
8120-	MPC	8412	4	-1.	111600	4	.0			EM841314
8121-	EM841314	111601		4	0.92388	111602	4	0.70711		EM841324
8122-	EM841324	111603		4	0.38268					
8123-	MPC	8412	5	-1.	111600	5	.0			EM841315
8124-	EM841315	111601		5	0.92388	111602	5	0.70711		EM841325
8125-	EM841325	111603		5	0.38268					
8126-	MPC	8412	6	-1.	111600	6	1.00000			EM841316
8127-	EM841316	111601		6	0.38268	111602	6	0.70711		EM841326
8128-	EM841326	111603		6	0.92388					
8129-	MPC	8414	1	-1.	111600	1	1.00000			EM841411
8130-	EM841411	111601		1	0.00000	111602	1	1.00000		EM841421
8131-	EM841421	111603		1	0.00000					
8132-	MPC	8414	2	-1.	111600	2	1.00000			EM841412
8133-	EM841412	111601		2	0.00000	111602	2	1.00000		EM841422
8134-	EM841422	111603		2	0.00000					
8135-	MPC	8414	3	-1.	111600	3	.0			EM841413
8136-	EM841413	111601		3	1.00000	111602	3	0.00000		EM841423
8137-	EM841423	111603		3	1.00000					
8138-	MPC	8414	4	-1.	111600	4	.0			EM841414
8139-	EM841414	111601		4	1.00000	111602	4	0.00000		EM841424
8140-	EM841424	111603		4	1.00000					
8141-	MPC	8414	5	-1.	111600	5	.0			EM841415
8142-	EM841415	111601		5	1.00000	111602	5	0.00000		EM841425
8143-	EM841425	111603		5	1.00000					
8144-	MPC	8414	6	-1.	111600	6	1.00000			EM841416
8145-	EM841416	111601		6	0.00000	111602	6	1.00000		EM841426
8146-	EM841426	111603		6	0.00000					
8147-	MPC	8415	1	-1.	111600	1	1.00000			EM841511
8148-	EM841511	111601		1	0.38268	111602	1	0.70711		EM841521
8149-	EM841521	111603		1	0.92388					
8150-	MPC	8415	2	-1.	111600	2	1.00000			EM841512

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CARD	1	2	3	4	5	6	7	8	9	10
8101- CM841223	1	111603	3	0.70711						
8102- MPC	1	8412	4	-1.	111600	4	.0			CM841214
8103- CM841214	1	111601	4	0.70711	111602					CM841224
8104- CM841224	1	111603	4	0.70711						
8105- MPC	1	8412	5	-1.	111600	5	.0			CM841215
8106- CM841215	1	111601	5	0.70711	111602					CM841225
8107- CM841225	1	111603	5	0.70711						
8108- MPC	1	8412	6	-1.	111600	6	1.00000			CM841216
8109- CM841216	1	111601	6	0.70711	111602					CM841226
8110- CM841226	1	111603	6	0.70711						
8111- MPC	1	8412	1	-1.	111600	1	1.00000			CM841311
8112- CM841311	1	111601	1	0.38268	111602					CM841321
8113- CM841321	1	111603	1	0.92388						
8114- MPC	1	8412	2	-1.	111600	2	1.00000			CM841312
8115- CM841312	1	111601	2	0.38268	111602					CM841322
8116- CM841322	1	111603	2	0.92388						
8117- MPC	1	8412	3	-1.	111600	3	.0			CM841313
8118- CM841313	1	111601	3	0.92388	111602					CM841323
8119- CM841323	1	111603	3	0.38268						
8120- MPC	1	8412	4	-1.	111600	4	.0			CM841314
8121- CM841314	1	111601	4	0.92388	111602					CM841324
8122- CM841324	1	111603	4	0.38268						
8123- MPC	1	8412	5	-1.	111600	5	.0			CM841315
8124- CM841315	1	111601	5	0.92388	111602					CM841325
8125- CM841325	1	111603	5	0.38268						
8126- MPC	1	8412	6	-1.	111600	6	1.00000			CM841316
8127- CM841316	1	111601	6	0.38268	111602					CM841326
8128- CM841326	1	111603	6	0.92388						
8129- MPC	1	8412	1	-1.	111600	1	1.00000			CM841411
8130- CM841411	1	111601	1	0.00000	111602					CM841421
8131- CM841421	1	111603	1	0.00000						
8132- MPC	1	8412	2	-1.	111600	2	1.00000			CM841412
8133- CM841412	1	111601	2	0.00000	111602					CM841422
8134- CM841422	1	111603	2	0.00000						
8135- MPC	1	8412	3	-1.	111600	3	.0			CM841413
8136- CM841413	1	111601	3	1.00000	111602					CM841423
8137- CM841423	1	111603	3	1.00000						
8138- MPC	1	8412	4	-1.	111600	4	.0			CM841414
8139- CM841414	1	111601	4	1.00000	111602					CM841424
8140- CM841424	1	111603	4	1.00000						
8141- MPC	1	8412	5	-1.	111600	5	.0			CM841415
8142- CM841415	1	111601	5	1.00000	111602					CM841425
8143- CM841425	1	111603	5	1.00000						
8144- MPC	1	8412	6	-1.	111600	6	1.00000			CM841416
8145- CM841416	1	111601	6	0.00000	111602					CM841426
8146- CM841426	1	111603	6	0.00000						
8147- MPC	1	8412	1	-1.	111600	1	1.00000			CM841511
8148- CM841511	1	111601	1	0.38268	111602					CM841521
8149- CM841521	1	111603	1	0.92388						
8150- MPC	1	8412	2	-1.	111600	2	1.00000			CM841512

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CARD	1	2	3	4	5	6	7	8	9	10
CJUNT										
9351-	CM841512		111601		2-0.38268	111602	2-0.70711			CM841522
9352-	CM841522		111603		2 0.92388					
9353-	MPC	8415	3		-1.	111600	3	0		CM841513
9354-	CM841513		111601		3 0.92388	111602	3-0.70711			CM841523
9355-	CM841523		111603		3-0.38269					
9356-	MPC	8415	4		-1.	111600	4	0		CM841514
9357-	CM841514		111601		4 0.92388	111602	4-0.70711			CM841524
9358-	CM841524		111603		4-0.38269					
9359-	MPC	8415	5		-1.	111600	5	0		CM841515
9360-	CM841515		111601		5 0.92388	111602	5-0.70711			CM841525
9361-	CM841525		111603		5-0.38269					
9362-	MPC	8415	6		-1.	111600	6	1.00000		CM841516
9363-	CM841516		111601		6-0.38268	111602	6-0.70711			CM841526
9364-	CM841526		111603		6 0.92388					
9365-	MPC	8416	1		-1.	111600	1	1.00000		CM841611
9366-	CM841611		111601		1-0.70711	111602	1-0.00000			CM841621
9367-	CM841621		111603		1 0.70711					
9368-	MPC	8416	2		-1.	111600	2	1.00000		CM841612
9369-	CM841612		111601		2-0.70711	111602	2-0.00000			CM841622
9370-	CM841622		111603		2 0.70711					
9371-	MPC	8416	3		-1.	111600	3	0		CM841613
9372-	CM841613		111601		3 0.70711	111602	3-1.00000			CM841623
9373-	CM841623		111603		3 0.70710					
9374-	MPC	8416	4		-1.	111600	4	0		CM841614
9375-	CM841614		111601		4 0.70711	111602	4-1.00000			CM841624
9376-	CM841624		111603		4 0.70710					
9377-	MPC	8416	5		-1.	111600	5	0		CM841615
9378-	CM841615		111601		5 0.70711	111602	5-1.00000			CM841625
9379-	CM841625		111603		5 0.70710					
9380-	MPC	8416	6		-1.	111600	6	1.00000		CM841616
9381-	CM841616		111601		6-0.70711	111602	6-0.00000			CM841626
9382-	CM841626		111603		6 0.70711					
9383-	MPC	8417	1		-1.	111600	1	1.00000		CM841711
9384-	CM841711		111601		1-0.92388	111602	1 0.70711			CM841721
9385-	CM841721		111603		1-0.38268					
9386-	MPC	8417	2		-1.	111600	2	1.00000		CM841712
9387-	CM841712		111601		2-0.92388	111602	2 0.70711			CM841722
9388-	CM841722		111603		2-0.38268					
9389-	MPC	8417	3		-1.	111600	3	0		CM841713
9390-	CM841713		111601		3 0.38268	111602	3-0.70711			CM841723
9391-	CM841723		111603		3 0.92388					
9392-	MPC	8417	4		-1.	111600	4	0		CM841714
9393-	CM841714		111601		4 0.38268	111602	4-0.70711			CM841724
9394-	CM841724		111603		4 0.92388					
9395-	MPC	8417	5		-1.	111600	5	0		CM841715
9396-	CM841715		111601		5 0.38268	111602	5-0.70711			CM841725
9397-	CM841725		111603		5 0.92388					
9398-	MPC	8417	6		-1.	111600	6	1.00000		CM841716
9399-	CM841716		111601		6-0.92388	111602	6 0.70711			CM841726
9400-	CM841726		111603		6-0.38268					

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
33UNT										
3471-	1	841E	1		-1.	111600	1	1.00000		24841811
3402-		111601			1-1.00000	111602		1.00000		24841821
3403-		111603			1-1.00000					
3404-	1	841E	2		-1.	111600	2	1.00000		24841812
3405-		111601			2-1.00000	111602		2.1.00000		24841822
3406-		111603			2-1.00000					
3407-	1	841E	3		-1.	111600	3	.0		24841813
3408-		111601			3.0.00000	111602		3-0.00000		24841823
3409-		111603			3.0.00000					
3410-	1	841E	4		-1.	111600	4	.0		24841814
3411-		111601			4.0.00000	111602		4-0.00000		24841824
3412-		111603			4.0.00000					
3413-	1	841E	5		-1.	111600	5	.0		24841815
3414-		111601			5.0.00000	111602		5-0.00000		24841825
3415-		111603			5.0.00000					
3416-	1	841E	6		-1.	111600	6	1.00000		24841816
3417-		111601			6-1.00000	111602		6.1.00000		24841826
3418-		111603			6-1.00000					
3419-	1	8430	1		-1.	111700	1	1.00000		24843011
3420-		111701			1.1.00000	111702		1.1.00000		24843021
3421-		111703			1.1.00000					
3422-	1	8430	2		-1.	111700	2	1.00000		24843012
3423-		111701			2.1.00000	111702		2.1.00000		24843022
3424-		111703			2.1.00000					
3425-	1	8430	3		-1.	111700	3	.0		24843013
3426-		111701			3.0.0	111702		3.0.0		24843023
3427-		111703			3.0.0					
3428-	1	8430	4		-1.	111700	4	.0		24843014
3429-		111701			4.0.0	111702		4.0.0		24843024
3430-		111703			4.0.0					
3431-	1	8430	5		-1.	111700	5	.0		24843015
3432-		111701			5.0.0	111702		5.0.0		24843025
3433-		111703			5.0.0					
3434-	1	8430	6		-1.	111700	6	1.00000		24843016
3435-		111701			6.1.00000	111702		6.1.00000		24843026
3436-		111703			6.1.00000					
3437-	1	8431	1		-1.	111700	1	1.00000		24843111
3438-		111701			1.0.92388	111702		1.0.70711		24843121
3439-		111703			1.0.38268					
3440-	1	8431	2		-1.	111700	2	1.00000		24843112
3441-		111701			2.0.92388	111702		2.0.70711		24843122
3442-		111703			2.0.38268					
3443-	1	8431	3		-1.	111700	3	.0		24843113
3444-		111701			3.0.38268	111702		3.0.70711		24843123
3445-		111703			3.0.92388					
3446-	1	8431	4		-1.	111700	4	.0		24843114
3447-		111701			4.0.38268	111702		4.0.70711		24843124
3448-		111703			4.0.92388					
3449-	1	8431	5		-1.	111700	5	.0		24843115
3450-		111701			5.0.38268	111702		5.0.70711		24843125

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EXTERNAL TANK W. FLUID
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CARD	1	2	3	4	5	6	7	8	9	10
9451-	1	8431	111703	5	0.92388					
9452-	1	8431	6	-1.	111700	6	1.00000			24843116
9453-	1	8431	111701	6	0.92388	111702	6	0.70711		24843126
9454-	1	8432	111703	6	0.38268					
9455-	1	8432	1	-1.	111700	1	1.00000			24843211
9456-	1	8432	111701	1	0.73711	111702	1	0.00000		24843221
9457-	1	8432	111703	1	0.70711					
9458-	1	8432	2	-1.	111700	2	1.00000			24843212
9459-	1	8432	111701	2	0.70711	111702	2	0.00000		24843222
9460-	1	8432	111703	2	0.70711					
9461-	1	8432	3	-1.	111700	3	.0			24843213
9462-	1	8432	111701	3	0.70711	111702	3	1.00000		24843223
9463-	1	8432	111703	3	0.70711					
9464-	1	8432	4	-1.	111700	4	.0			24843214
9465-	1	8432	111701	4	0.70711	111702	4	1.00000		24843224
9466-	1	8432	111703	4	0.70711					
9467-	1	8432	5	-1.	111700	5	.0			24843215
9468-	1	8432	111701	5	0.70711	111702	5	1.00000		24843225
9469-	1	8432	111703	5	0.70711					
9470-	1	8432	6	-1.	111700	6	1.00000			24843216
9471-	1	8432	111701	6	0.70711	111702	6	0.00000		24843226
9472-	1	8432	111703	6	0.70711					
9473-	1	8432	1	-1.	111700	1	1.00000			24843311
9474-	1	8432	111701	1	0.38268	111702	1	0.70711		24843321
9475-	1	8432	111703	1	0.92388					
9476-	1	8432	2	-1.	111700	2	1.00000			24843312
9477-	1	8432	111701	2	0.38268	111702	2	0.70711		24843322
9478-	1	8432	111703	2	0.92388					
9479-	1	8432	3	-1.	111700	3	.0			24843313
9480-	1	8432	111701	3	0.92388	111702	3	0.70711		24843323
9481-	1	8432	111703	3	0.38268					
9482-	1	8432	4	-1.	111700	4	.0			24843314
9483-	1	8432	111701	4	0.92388	111702	4	0.70711		24843324
9484-	1	8432	111703	4	0.38268					
9485-	1	8432	5	-1.	111700	5	.0			24843315
9486-	1	8432	111701	5	0.92388	111702	5	0.70711		24843325
9487-	1	8432	111703	5	0.38268					
9488-	1	8432	6	-1.	111700	6	1.00000			24843316
9489-	1	8432	111701	6	0.38268	111702	6	0.70711		24843326
9490-	1	8432	111703	6	0.92388					
9491-	1	8432	1	-1.	111700	1	1.00000			24843411
9492-	1	8432	111701	1	0.00000	111702	1	1.00000		24843421
9493-	1	8432	111703	1	0.00000					
9494-	1	8432	2	-1.	111700	2	1.00000			24843412
9495-	1	8432	111701	2	0.00000	111702	2	1.00000		24843422
9496-	1	8432	111703	2	0.00000					
9497-	1	8432	3	-1.	111700	3	.0			24843413
9498-	1	8432	111701	3	1.00000	111702	3	0.00000		24843423
9499-	1	8432	111703	3	1.00000					
9500-	1	8432	4	-1.	111700	4	.0			24843414

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SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CJUVT										
9501-	CM843414	111701	111701	4	1.00000	111702	4	0.00000		CM843424
9502-	CM843424	111703	111703	4	1.00000					
9503-	MPC	8434	5							
9504-	CM843415	111701	111701	5	1.00000	111702	5	0.00000		CM843415
9505-	CM843425	111703	111703	5	1.00000	111702	5	0.00000		CM843425
9506-	MPC	8434	6							
9507-	CM843416	111701	111701	6	1.00000	111702	6	1.00000		CM843416
9508-	CM843426	111703	111703	6	1.00000	111702	6	1.00000		CM843426
9509-	MPC	8435	1							
9510-	CM843511	111701	111701	1	1.00000	111702	1	1.00000		CM843511
9511-	CM843521	111703	111703	1	1.00000	111702	1	1.00000		CM843521
9512-	MPC	8435	2							
9513-	CM843512	111701	111701	2	1.00000	111702	2	1.00000		CM843512
9514-	CM843522	111703	111703	2	1.00000	111702	2	1.00000		CM843522
9515-	MPC	8435	3							
9516-	CM843513	111701	111701	3	1.00000	111702	3	1.00000		CM843513
9517-	CM843523	111703	111703	3	1.00000	111702	3	1.00000		CM843523
9518-	MPC	8435	4							
9519-	CM843514	111701	111701	4	1.00000	111702	4	1.00000		CM843514
9520-	CM843524	111703	111703	4	1.00000	111702	4	1.00000		CM843524
9521-	MPC	8435	5							
9522-	CM843515	111701	111701	5	1.00000	111702	5	1.00000		CM843515
9523-	CM843525	111703	111703	5	1.00000	111702	5	1.00000		CM843525
9524-	MPC	8435	6							
9525-	CM843516	111701	111701	6	1.00000	111702	6	1.00000		CM843516
9526-	CM843526	111703	111703	6	1.00000	111702	6	1.00000		CM843526
9527-	MPC	8436	1							
9528-	CM843611	111701	111701	1	1.00000	111702	1	1.00000		CM843611
9529-	CM843621	111703	111703	1	1.00000	111702	1	1.00000		CM843621
9530-	MPC	8436	2							
9531-	CM843612	111701	111701	2	1.00000	111702	2	1.00000		CM843612
9532-	CM843622	111703	111703	2	1.00000	111702	2	1.00000		CM843622
9533-	MPC	8436	3							
9534-	CM843613	111701	111701	3	1.00000	111702	3	1.00000		CM843613
9535-	CM843623	111703	111703	3	1.00000	111702	3	1.00000		CM843623
9536-	MPC	8436	4							
9537-	CM843614	111701	111701	4	1.00000	111702	4	1.00000		CM843614
9538-	CM843624	111703	111703	4	1.00000	111702	4	1.00000		CM843624
9539-	MPC	8436	5							
9540-	CM843615	111701	111701	5	1.00000	111702	5	1.00000		CM843615
9541-	CM843625	111703	111703	5	1.00000	111702	5	1.00000		CM843625
9542-	MPC	8436	6							
9543-	CM843616	111701	111701	6	1.00000	111702	6	1.00000		CM843616
9544-	CM843626	111703	111703	6	1.00000	111702	6	1.00000		CM843626
9545-	MPC	8437	1							
9546-	CM843711	111701	111701	1	1.00000	111702	1	1.00000		CM843711
9547-	CM843721	111703	111703	1	1.00000	111702	1	1.00000		CM843721
9548-	MPC	8437	2							
9549-	CM843712	111701	111701	2	1.00000	111702	2	1.00000		CM843712
9550-	CM843722	111703	111703	2	1.00000	111702	2	1.00000		CM843722

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CARD	1	2	3	4	5	6	7	8	9	10		
CJUNT												
8551-	1		8437	3	-1.	111700	3	.0		EM843713		
8552-			111701		3 0.38268	111702		3-0.70711		EM843723		
8553-			111703		3 0.92388							
8554-	1		8437	4	-1.	111700	4	.0		EM843714		
8555-			111701		4 0.38268	111702		4-0.70711		EM843724		
8556-			111703		4 0.92388							
8557-	1		8437	5	-1.	111700	5	.0		EM843715		
8558-			111701		5 0.38268	111702		5-0.70711		EM843725		
8559-			111703		5 0.92388							
8560-	1		8437	6	-1.	111700	6	1.00000		EM843716		
8561-			111701		6-0.92388	111702		6 0.70711		EM843726		
8562-			111703		6-0.38268							
8563-	1		8438	1	-1.	111700	1	1.00000		EM843811		
8564-			111701		1-1.00000	111702		1 1.00000		EM843821		
8565-			111703		1-1.00000							
8566-	1		8438	2	-1.	111700	2	1.00000		EM843812		
8567-			111701		2-1.00000	111702		2 1.00000		EM843822		
8568-			111703		2-1.00000							
8569-	1		8438	3	-1.	111700	3	.0		EM843813		
8570-			111701		3 0.00000	111702		3-0.00000		EM843823		
8571-			111703		3 0.00000							
8572-	1		8438	4	-1.	111700	4	.0		EM843814		
8573-			111701		4 0.00000	111702		4-0.00000		EM843824		
8574-			111703		4 0.00000							
8575-	1		8438	5	-1.	111700	5	.0		EM843815		
8576-			111701		5 0.00000	111702		5-0.00000		EM843825		
8577-			111703		5 0.00000							
8578-	1		8438	6	-1.	111700	6	1.00000		EM843816		
8579-			111701		6-1.00000	111702		6 1.00000		EM843826		
8580-			111703		6-1.00000							
8581-	1		8440	1	1.	111700	1	-.9534		EM1		
8582-			111700	2	.3015							
8583-	1		101600	2	.9919	101600	1	.1269				
8584-			111700	2	.9534	111700	1	.3015				
8585-	1		8325									
8586-			8328									
8587-	13		110200									
8588-	15		100200									
8589-	26		101200									
8590-	26		101300									
8591-	35		5204									
8592-	35		100700									
8593-	35		110500									
8594-	35		111200									
8595-	135		5001									
8596-	135		8010									
8597-	135		8350									
8598-	23456		100201									
8599-	23456		100301									
8600-	23456		100401									
8601-	23456		100501									

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CARD	1	2	3	4	5	6	7	8	9	10
2304F	OMIT1	100601	100602	100603						
8631-	OMIT1	23456	100701	100702	100703					
8602-	OMIT1	23456	100801	100802	100803					
9601-	OMIT1	23456	100901	100902	100903					
8500-	OMIT1	23456	101001	101002	101003					
8505-	OMIT1	23456	101101	101102	101103					
8505-	OMIT1	23456	101201	101202	101203					
8507-	OMIT1	23456	101301	101302	101303					
8503-	OMIT1	23456	101401	101402	101403					
8507-	OMIT1	23456	101501	101502	101503					
9610-	OMIT1	23456	101601	101602	101603					
9611-	OMIT1	23456	101701	101702	101703					
8612-	OMIT1	23456	101801	101802	101803					
8611-	OMIT1	23456	101901	101902	101903					
8614-	OMIT1	23456	102001	102002	102003					
8615-	OMIT1	23456	102101	102102	102103					
8615-	OMIT1	23456	102201	102202	102203					
8617-	OMIT1	23456	102301	102302	102303					
8617-	OMIT1	23456	102401	102402	102403					
8613-	OMIT1	23456	102501	102502	102503					
8613-	OMIT1	23456	102601	102602	102603					
8620-	OMIT1	23456	102701	102702	102703					
8621-	OMIT1	23456	102801	102802	102803					
8622-	OMIT1	23456	102901	102902	102903					
8623-	OMIT1	23456	103001	103002	103003					
8623-	OMIT1	23456	103101	103102	103103					
8623-	OMIT1	23456	103201	103202	103203					
8623-	OMIT1	23456	103301	103302	103303					
8623-	OMIT1	23456	103401	103402	103403					
8623-	OMIT1	23456	103501	103502	103503					
8623-	OMIT1	23456	103601	103602	103603					
8623-	OMIT1	23456	103701	103702	103703					
8623-	OMIT1	23456	103801	103802	103803					
8623-	OMIT1	23456	103901	103902	103903					
8623-	OMIT1	23456	104001	104002	104003					
8623-	OMIT1	23456	104101	104102	104103					
8623-	OMIT1	23456	104201	104202	104203					
8623-	OMIT1	23456	104301	104302	104303					
8623-	OMIT1	23456	104401	104402	104403					
8623-	OMIT1	23456	104501	104502	104503					
8623-	OMIT1	23456	104601	104602	104603					
8623-	OMIT1	23456	104701	104702	104703					
8623-	OMIT1	23456	104801	104802	104803					
8623-	OMIT1	23456	104901	104902	104903					
8623-	OMIT1	23456	105001	105002	105003					
8623-	OMIT1	23456	105101	105102	105103					
8623-	OMIT1	23456	105201	105202	105203					
8623-	OMIT1	23456	105301	105302	105303					
8623-	OMIT1	23456	105401	105402	105403					
8623-	OMIT1	23456	105501	105502	105503					
8623-	OMIT1	23456	105601	105602	105603					
8623-	OMIT1	23456	105701	105702	105703					
8623-	OMIT1	23456	105801	105802	105803					
8623-	OMIT1	23456	105901	105902	105903					
8623-	OMIT1	23456	106001	106002	106003					
8623-	OMIT1	23456	106101	106102	106103					
8623-	OMIT1	23456	106201	106202	106203					
8623-	OMIT1	23456	106301	106302	106303					
8623-	OMIT1	23456	106401	106402	106403					
8623-	OMIT1	23456	106501	106502	106503					
8623-	OMIT1	23456	106601	106602	106603					
8623-	OMIT1	23456	106701	106702	106703					
8623-	OMIT1	23456	106801	106802	106803					
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8623-	OMIT1	23456	107001	107002	107003					
8623-	OMIT1	23456	107101	107102	107103					
8623-	OMIT1	23456	107201	107202	107203					
8623-	OMIT1	23456	107301	107302	107303					
8623-	OMIT1	23456	107401	107402	107403					
8623-	OMIT1	23456	107501	107502	107503					
8623-	OMIT1	23456	107601	107602	107603					
8623-	OMIT1	23456	107701	107702	107703					
8623-	OMIT1	23456	107801	107802	107803					
8623-	OMIT1	23456	107901	107902	107903					
8623-	OMIT1	23456	108001	108002	108003					
8623-	OMIT1	23456	108101	108102	108103					
8623-	OMIT1	23456	108201	108202	108203					
8623-	OMIT1	23456	108301	108302	108303					
8623-	OMIT1	23456	108401	108402	108403					
8623-	OMIT1	23456	108501	108502	108503					
8623-	OMIT1	23456	108601	108602	108603					
8623-	OMIT1	23456	108701	108702	108703					
8623-	OMIT1	23456	108801	108802	108803					
8623-	OMIT1	23456	108901	108902	108903					
8623-	OMIT1	23456	109001	109002	109003					
8623-	OMIT1	23456	109101	109102	109103					
8623-	OMIT1	23456	109201	109202	109203					
8623-	OMIT1	23456	109301	109302	109303					
8623-	OMIT1	23456	109401	109402	109403					
8623-	OMIT1	23456	109501	109502	109503					
8623-	OMIT1	23456	109601	109602	109603					
8623-	OMIT1	23456	109701	109702	109703					
8623-	OMIT1	23456	109801	109802	109803					
8623-	OMIT1	23456	109901	109902	109903					
8623-	OMIT1	23456	110001	110002	110003					
8623-	OMIT1	23456	110101	110102	110103					
8623-	OMIT1	23456	110201	110202	110203					
8623-	OMIT1	23456	110301	110302	110303					
8623-	OMIT1	23456	110401	110402	110403					
8623-	OMIT1	23456	110501	110502	110503					
8623-	OMIT1	23456	110601	110602	110603					
8623-	OMIT1	23456	110701	110702	110703					
8623-	OMIT1	23456	110801	110802	110803					
8623-	OMIT1	23456	110901	110902	110903					
8623-	OMIT1	23456	111001	111002	111003					
8623-	OMIT1	23456	111101	111102	111103					
8623-	OMIT1	23456	111201	111202	111203					
8623-	OMIT1	23456	111301	111302	111303					
8623-	OMIT1	23456	111401	111402	111403					
8623-	OMIT1	23456	111501	111502	111503					
8623-	OMIT1	23456	111601	111602	111603					
8623-	OMIT1	23456	111701	111702	111703					
8623-	OMIT1	23456	111801	111802	111803					
8623-	OMIT1	23456	111901	111902	111903					
8623-	OMIT1	23456	112001	112002	112003					
8623-	OMIT1	23456	112101	112102	112103					
8623-	OMIT1	23456	112201	112202	112203					
8623-	OMIT1	23456	112301	112302	112303					
8623-	OMIT1	23456	112401	112402	112403					
8623-	OMIT1	23456	112501	112502	112503					
8623-	OMIT1	23456	112601	112602	112603					
8623-	OMIT1	23456	112701	112702	112703					
8623-	OMIT1	23456	112801	112802	112803					
8623-	OMIT1	23456	112901	112902	112903					
8623-	OMIT1	23456	113001	113002	113003					
8623-	OMIT1	23456	113101	113102	113103					
8623-	OMIT1	23456	113201	113202	113203					
8623-	OMIT1	23456	113301	113302	113303					
8623-	OMIT1	23456	113401	113402	113403					
8623-	OMIT1	23456	113501	113502	113503					
8623-	OMIT1	23456	113601	113602	113603					
8623-	OMIT1	23456	113701	113702	113703					
8623-	OMIT1	23456	113801	113802	113803					
8623-	OMIT1	23456	113901	113902	113903					
8623-	OMIT1	23456	114001	114002	114003					
8623-	OMIT1	23456	114101	114102	114103					
8623-	OMIT1	23456	114201	114202	114203					
8623-	OMIT1	23456	114301	114302	114303					
8623-	OMIT1	23456	114401	114402	114403					
8623-	OMIT1	23456	114501	114502	114503					
8623-	OMIT1	23456	114601	114602						

EXTREME TANK W. FLUID
HARMONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

SORTED BULK DATA ECHO

CARD	1	2	3	4	5	6	7	8	9	10
CJUNIT	PEAR	8550	8400	.324	.0126	.3680	5092	.0000779		
8551-	PLOTTEL	91	5091	5092		92	5094	5095		
8552-	PLOTTEL	93	5093	5094		94	5096	5097		
8553-	PLOTTEL	95	5095	5096		96	5098	5099		
8554-	PLOTTEL	97	5097	5098		98	8251	8252		
8555-	PLOTTEL	250	8250	8251		251	8253	8254		
8556-	PLOTTEL	252	8252	8253		253	8255	8256		
8557-	PLOTTEL	254	8254	8255		255	8257	8258		
8558-	PLOTTEL	256	8256	8257		257	8259	8260		
8559-	PLOTTEL	8004	8517	8010		8011	8012	8013		
8560-	PLOTTEL	8006	8517	8010		8011	8012	8013		
8561-	PLOTTEL	8008	8517	8010		8011	8012	8013		
8562-	PLOTTEL	8010	8010	8010		8011	8012	8013		
8563-	PLOTTEL	8012	8012	8012		8013	8014	8015		
8564-	PLOTTEL	8014	8014	8014		8015	8016	8017		
8565-	PLOTTEL	8016	8016	8016		8017	8018	8019		
8566-	PLOTTEL	8018	8018	8018		8019	8020	8021		
8567-	PLOTTEL	8020	8020	8020		8021	8022	8023		
8568-	PLOTTEL	8022	8022	8022		8023	8024	8025		
8569-	PLOTTEL	8024	8024	8024		8025	8026	8027		
8570-	PLOTTEL	8026	8026	8026		8027	8028	8029		
8571-	PLOTTEL	8028	8028	8028		8029	8030	8031		
8572-	PLOTTEL	8030	8030	8030		8031	8032	8033		
8573-	PLOTTEL	8032	8032	8032		8033	8034	8035		
8574-	PLOTTEL	8034	8034	8034		8035	8036	8037		
8575-	PLOTTEL	8036	8036	8036		8037	8038	8039		
8576-	PLOTTEL	8038	8038	8038		8039	8040	8041		
8577-	PLOTTEL	8040	8040	8040		8041	8042	8043		
8578-	PLOTTEL	8042	8042	8042		8043	8044	8045		
8579-	PLOTTEL	8044	8044	8044		8045	8046	8047		
8580-	PLOTTEL	8046	8046	8046		8047	8048	8049		
8581-	PLOTTEL	8048	8048	8048		8049	8050	8051		
8582-	PLOTTEL	8050	8050	8050		8051	8052	8053		
8583-	PLOTTEL	8052	8052	8052		8053	8054	8055		
8584-	PLOTTEL	8054	8054	8054		8055	8056	8057		
8585-	PLOTTEL	8056	8056	8056		8057	8058	8059		
8586-	PLOTTEL	8058	8058	8058		8059	8060	8061		
8587-	PLOTTEL	8060	8060	8060		8061	8062	8063		
8588-	PLOTTEL	8062	8062	8062		8063	8064	8065		
8589-	PLOTTEL	8064	8064	8064		8065	8066	8067		
8590-	PLOTTEL	8066	8066	8066		8067	8068	8069		
8591-	PLOTTEL	8068	8068	8068		8069	8070	8071		
8592-	PLOTTEL	8070	8070	8070		8071	8072	8073		
8593-	PLOTTEL	8072	8072	8072		8073	8074	8075		
8594-	PLOTTEL	8074	8074	8074		8075	8076	8077		
8595-	PLOTTEL	8076	8076	8076		8077	8078	8079		
8596-	PLOTTEL	8078	8078	8078		8079	8080	8081		
8597-	PLOTTEL	8080	8080	8080		8081	8082	8083		
8598-	PLOTTEL	8082	8082	8082		8083	8084	8085		
8599-	PLOTTEL	8084	8084	8084		8085	8086	8087		
8600-	PLOTTEL	8086	8086	8086		8087	8088	8089		
8601-	PLOTTEL	8088	8088	8088		8089	8090	8091		
8602-	PLOTTEL	8090	8090	8090		8091	8092	8093		
8603-	PLOTTEL	8092	8092	8092		8093	8094	8095		
8604-	PLOTTEL	8094	8094	8094		8095	8096	8097		
8605-	PLOTTEL	8096	8096	8096		8097	8098	8099		
8606-	PLOTTEL	8098	8098	8098		8099	8100	8101		
8607-	PLOTTEL	8100	8100	8100		8101	8102	8103		
8608-	PLOTTEL	8102	8102	8102		8103	8104	8105		
8609-	PLOTTEL	8104	8104	8104		8105	8106	8107		
8610-	PLOTTEL	8106	8106	8106		8107	8108	8109		
8611-	PLOTTEL	8108	8108	8108		8109	8110	8111		
8612-	PLOTTEL	8110	8110	8110		8111	8112	8113		
8613-	PLOTTEL	8112	8112	8112		8113	8114	8115		
8614-	PLOTTEL	8114	8114	8114		8115	8116	8117		
8615-	PLOTTEL	8116	8116	8116		8117	8118	8119		
8616-	PLOTTEL	8118	8118	8118		8119	8120	8121		
8617-	PLOTTEL	8120	8120	8120		8121	8122	8123		
8618-	PLOTTEL	8122	8122	8122		8123	8124	8125		
8619-	PLOTTEL	8124	8124	8124		8125	8126	8127		
8620-	PLOTTEL	8126	8126	8126		8127	8128	8129		
8621-	PLOTTEL	8128	8128	8128		8129	8130	8131		
8622-	PLOTTEL	8130	8130	8130		8131	8132	8133		
8623-	PLOTTEL	8132	8132	8132		8133	8134	8135		
8624-	PLOTTEL	8134	8134	8134		8135	8136	8137		
8625-	PLOTTEL	8136	8136	8136		8137	8138	8139		
8626-	PLOTTEL	8138	8138	8138		8139	8140	8141		
8627-	PLOTTEL	8140	8140	8140		8141	8142	8143		
8628-	PLOTTEL	8142	8142	8142		8143	8144	8145		
8629-	PLOTTEL	8144	8144	8144		8145	8146	8147		
8630-	PLOTTEL	8146	8146	8146		8147	8148	8149		
8631-	PLOTTEL	8148	8148	8148		8149	8150	8151		
8632-	PLOTTEL	8150	8150	8150		8151	8152	8153		
8633-	PLOTTEL	8152	8152	8152		8153	8154	8155		
8634-	PLOTTEL	8154	8154	8154		8155	8156	8157		
8635-	PLOTTEL	8156	8156	8156		8157	8158	8159		
8636-	PLOTTEL	8158	8158	8158		8159	8160	8161		
8637-	PLOTTEL	8160	8160	8160		8161	8162	8163		
8638-	PLOTTEL	8162	8162	8162		8163	8164	8165		
8639-	PLOTTEL	8164	8164	8164		8165	8166	8167		
8640-	PLOTTEL	8166	8166	8166		8167	8168	8169		
8641-	PLOTTEL	8168	8168	8168		8169	8170	8171		
8642-	PLOTTEL	8170	8170	8170		8171	8172	8173		
8643-	PLOTTEL	8172	8172	8172		8173	8174	8175		
8644-	PLOTTEL	8174	8174	8174		8175	8176	8177		
8645-	PLOTTEL	8176	8176	8176		8177	8178	8179		
8646-	PLOTTEL	8178	8178	8178		8179	8180	8181		
8647-	PLOTTEL	8180	8180	8180		8181	8182	8183		
8648-	PLOTTEL	8182	8182	8182		8183	8184	8185		
8649-	PLOTTEL	8184	8184	8184		8185	8186	8187		
8650-	PLOTTEL	8186	8186	8186		8187	8188	8189		
8651-	PLOTTEL	8188	8188	8188		8189	8190	8191		
8652-	PLOTTEL	8190	8190	8190		8191	8192	8193		
8653-	PLOTTEL	8192	8192	8192		8193	8194	8195		
8654-	PLOTTEL	8194	8194	8194		8195	8196	8197		
8655-	PLOTTEL	8196	8196	8196		8197	8198	8199		
8656-	PLOTTEL	8198	8198	8198		8199	8200	8201		
8657-	PLOTTEL	8200	8200	8200		8201	8202	8203		
8658-	PLOTTEL	8202	8202	8202		8203	8204	8205		
8659-	PLOTTEL	8204	8204	8204		8205	8206	8207		
8660-	PLOTTEL	8206	8206	8206		8207	8208	8209		
8661-	PLOTTEL	8208	8208	8208		8209	8210	8211		
8662-	PLOTTEL	8210	8210	8210		8211	8212	8213		
8663-	PLOTTEL	8212	8212	8212		8213	8214	8215		
8664-	PLOTTEL	8214	8214	8214		8215	8216	8217		
8665-	PLOTTEL	8216	8216	8216		8217	8218	8219		
8666-	PLOTTEL	8218	8218	8218		8219	8220	8221		
8667-	PLOTTEL	8220	8220	8220		8221	8222	8223		
8668-	PLOTTEL	8222	8222	8222		8223	8224	8225		
8669-	PLOTTEL	8224	8224	8224		8225	8226	8227		
8670-	PLOTTEL	8226	8226	8226		8227	8228	8229</		

EXTERNAL TANK % FLUID
HARMONIC REDUCTION

JULY 19, 1976 NASTRAN 5/13/72

N A S T R A N S O U R C E P R O G R A M C O M P I L A T I O N
DMAP-DMAP INSTRUCTION NO.

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1 BEGIN N3.3 NORMAL MODES ANALYSIS - SERIES M $
2 FILE LLL=TAPE $
3 GP1 GEOM1,GEOM2,/GFL,EOEXIN,GFCT,CSTM,BGPD1,SIL/V,N,LUSE1/ C,N,
    123/V,N,N,NOGRD1 $
4 SAVE LUSE1 $
5 CHKPT GP1,EOEXIN,GPDT,CSTM,BGPD1,SIL $
6 GP2 GEOM2,EOEXIN/ECT $
7 CHKPT ECT $
8 PLTSET PCDB,EOEXIN,ECT/PLTSETX,PLTPAR,GPSETS,ELSETS/V,N,NSIL/ V,N,
    JUMPPLCT $
9 SAVE NSIL,JUMPPLCT $
10 PFTMSG PLTSETX// $
11 SETVAL //V,N,PLTFLG/C,N,1/V,N,PPFILE/C,N,0 $
12 SAVE PLTFLG,PPFILE $
13 COND P1,JUMPPLCT $
14 PLOT PLTPAR,GPSETS,ELSETS,CASECC,BGPD1,EOEXIN,SIL,./PLOTX1/ V,N,
    NSIL/V,N,LUSE1/V,N,JUMPPLCT/V,N,PLTFLG/V,N,PPFILE $
15 SAVE JUMPPLCT,PLTFLG,PPFILE $
16 PFTMSG PLOTX1// $
17 LABEL P1 $
18 CHKPT PLTPAR,GPSETS,ELSETS $
19 GP3 GEOM3,EOEXIN,GEOM2/,GP11/C,N,123/V,N,N,NOGRAV/C,N,123 $
20 CHKPT G11 $
21 TAIL ,ECT,EFT,BGPD1,SIL,GP11,CSTM/EST,.,GEI,ECT,GPCT/V,N,LUSE1/ C,N,
    123/V,N,N,NOGRD1/C,N,0/V,N,N,NOGENL/V,N,GENEL $
22 SAVE NOGENL,NOGRD1,GENEL $

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INTERVAL TANK W. FLUID
IONIC REDUCTION

JULY 19, 1974 NASTRAN 5/13/72

N A S T R A N S E R C E P R O G R A M C O M P I L A T I O N

DMAP-UMAP INSTRUCTION
NO.

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23 COND ERROR1,NOSIMP $
24 PURGE GGPST/GENEL $
25 CHKPNT EST,ECPT,GPCT,CEI,OGPS1 $
26 SMA1 C3TV,MPT,ECPT,GPCT,DIT/KGGX,GPST/V,N,NOGENL/V,N,NOK4GG $
27 CHKPNT KGGX,GPST $
28 SMA2 C3TV,MPT,ECPT,GPCT,DIT/MGG,V,Y,WTMASS=1.0/V,N,NOMGG/V,N,NOMGG/
V,Y,CJUFMASS/V,Y,CB8AR/V,Y,CPRCD/V,Y,CPOUAD1/V,Y,CPOUAD2/ V,
Y,CPTRIAL/V,Y,CPTRIAL2/V,Y,CPTURE/V,Y,CPOOPLT/V,Y,CPTRPLT/ V,Y,
C3TRB5C $
29 SAVE NMGG $
30 COND ERROR1,NOMGG $
31 CHKPNT MGG $
32 COND LCPMG,GRDPNT $
33 GPMG 9G-DT,CSTM,EOEXIN,MGG/LGPMG/V,Y,GRDPNT=-1/V,Y,WTMASS $
34 OFF GPMG,.....//V,N,CARDNC $
35 SAVE CARDNC $
36 LABEL LGPMG $
37 EQUIV KGGX,KGG/NOGENL $
38 CHKPNT KGG $
39 COND L3L11,NOGENL $
40 SMA3 GEI,KGGX/KGG/V,N,LUSET/V,N,NOGENL/V,N,NOSIMP $
41 CHKPNT KGG $
42 LABEL L9L11 $
43 PARAM //C,N,MPY/V,N,NSKIP/C,N,0/C,N,0 $
44 GP4 CA/SECC,GEOMA,EOEXIN,SIL,GRDT/RG,.,USET,/V,N,LUSET/V,N,MPCF1/ V,
N,MPCF2/V,N,SINGLE/V,N,CNIT/V,N,REACT/V,N,NSKIP/V,N,REPEAT/
V,Y,NQSET/V,N,NOL/V,N,NQA $
45 SAVE MPCF1,MPCF2,SINGLE,DM11,REACT,NSKIP,REPEAT,NQSET,NOL,NQA $

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JULY 19, 1974

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EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

NASTRAN SOURCE PROGRAM COMPILATION

DMAP-DMAP INSTRUCTION

NO.

46 COND ERROR3,NOL \$

47 PURCE KRR,KLR,DM,MLR,NR/REACT/GM/MPCF1/GO/OMIT/KFS/SINGLE/OG/NOSET \$

48 EQUIV KGS,KNN/MPCF1/MGG,MNN/APCF1 \$

49 CHKENT KRR,KLR,DM,MLR,NR,GM,RC,GO,KFS,OG,USET,KNN,MNN \$

50 COND L3L4,GENEL \$

51 GPSP GPL,GPST,USET,SL/OGPST \$

52 GPP GPPST,....//V,N,CARDAC \$

53 SAVE CARDNO \$

54 LABEL L3L4 \$

55 COND L3L2,MPCF2 \$

56 MCE1 USET,RG/GM \$

57 CHKENT GV \$

58 MCE2 USET,GM,KGG,MGG,./KNN,MNN \$

59 CHKENT KNN,MNN \$

60 L3L2 L3L2 \$

61 EQUIV KNN,KFF/SINGLE/MNN,MFF/SINGLE \$

62 CHKENT KFF,MFF \$

63 COND L3L3,SINGLE \$

64 SCE1 USET,KNN,MNN,./KFF,KFS,MFF \$

65 CHKENT KFS,KFF,MFF \$

66 LABEL L3L3 \$

67 EQUIV KFF,KAA/OMIT/MFF,MAA/OMIT \$

68 CHKENT KAA,MAA \$

69 COND L3L5,OPT \$

70 SHP1 USET,KFF,./GO,KAA,KCC,LCC,UOD,.... \$

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JULY 19, 1974 NASTRAN 5/13/72

EXTENSION TANK W. FLUID
HARMONIC REDUCTION

N A S T R A N S O U R C E P R O G R A M C O M P I L A T I O N

DMAP-DMAP INSTRUCTION
NO.

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71  CHKPNT  GO,XAA $
72  SMP2    USET,GO,NEF/MAR $
73  CHKPNT  MAR $
74  LABEL   LEL5 $
74  ADD MAR,VELD/MAR $
74  PARAM //C,N,NOP/V,N,TRUE=-1 $
74  EQUIV MAR,MAR/TRUE $
74  CCND MARNO3,TQUE $
74  MATPRN MAR,.,.,.// $
74  LABEL MARNO9 $
75  CCND    LEL5,REACT $
76  REACT1  USET,KAA,MAR/KLL,KLR,KFF,MLL,PLR,MAR $
77  CHKPNT  KLL,KLR,KRR,MLL,MLR,MRR $
78  REACT1  KLL/LLL,ULL $
79  CHKPNT  ULL,LLL $
80  REACT1  LLL,ULL,KLR,KRR/DM $
81  CHKPNT  DM $
82  REACT1  DM,MLL,MLP,MRR/MR $
83  CHKPNT  MR $
84  LABEL   LEL6 $
85  DPD      DYNAMICS,CPL,SIL,USET/CPLD,SIL,USETD,.,.,.,EED,EODYN/V,N,
LUSET/V,N,LUSETD/V,N,ACTFL/V,N,NODLT/V,N,NOPSOL/V,N,NOFRL/ V,
N,ICNFLT/V,N,NCTRL/V,N,NCEED/C,N,123/V,N,NOUE $
86  SAVE    NEEDED $
87  CCND    ERROR2,NEED $
88  CHKPNT  EED $

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NASTRAN SOURCE PROGRAM COMPILATION

DNAP-DNAP INSTRUCTION
NO.

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88 SEEMAT NGG,KGG,.,.,./C,N,PRINT $
89 READ KAA,MAA,MR,DM,EED,USET,CASECC/LAMA,PHIA,MI,DEIGS/C,N,MODES/V,N,
    NEIGV $
90 SAVE NEIGV $
91 CHKPNL LAMA,PHIA,MI,DEIGS $
91 YATGPR GPL,USET,SIL,PHIA//C,N,A
92 OFP LAMA,DEIGS,.,.,./V,N,CAFDNC $
93 SAVE CAROND $
94 CCND FINIS,NEIGV $
95 SDR1 USET,PHIA,.,.,GD,GN,KFS,./PHIG,.,GG/C,N,1/C,N,REIG $
96 CHKONT PHIG,GG $
97 PARAM /C,N,SUB/V,N,SCALAR/V,N,SIL/V,N,LUSEP $
98 EQUIV SIL,SIP/SCALAR/BGPD,EGPCP/SCALAR $
99 CHKPNL SIP,GGPCP $
100 CCND L3L7,SCALAR $
101 PLTTRAN 93PDT,SIL/BGPD,SIP/V,N,LUSEP/V,N,LUSEP $
102 SAVE LUSEP $
103 CHKPNL 83DEP,SIP $
104 LABEL L3L7 $
105 SC22 CASECC,CSTM,NF1,DIT,EGEXIN,SIL,.,.,BGPD,LAMA,GG,PHIG,EST,./,OOGL,
    GPHIG,DESI,DEF1,PPHIG/C,N,REIG $
106 OFP GPHIG,OOGL,DEF1,DESI,.,./V,N,CAFDNC $
107 SAVE CAROND $
107 SMPYAD PHIA,KAA,PHIA,.,./KH/C,N,2/C,N,1/C,N,1/C,N,2/C,N,1 $
107 SOLVE MI,KH/WH/C,N,1 $
107 SMPYAD 9DU2,P1 A,WH,.,./FD2/C,N,2 $

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JULY 19, 1974 NASTRAN 5/13/72

EXTERNAL TANK W. FLUID
HARMONIC REDUCTION

N A S T R A N S O U R C E P R O G R A M C O M P I L A T I O N

DMAP-DMAP INSTRUCTION
NO.

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107 MATPRN MH,PD2,.,.,// $
108 CGND P1,JUMPPLOT $
109 PLOT PLTPAR,GPSETS,ELSETS,C/SECC,BGPD,EGEXIN,SIP,PPHIG / PLOTX2/
V,1,NSIL/V,N,LLSET/V,N,JUMPPLOT/V,N,PLTFLG/V,N,PFILE $
110 SAVE PFILE $
111 PRTMSG PLOTX2// $
112 LABEL P1 $
113 JUMP P115 $
114 LABEL ERROR1 $
115 PRTPARM4 //C,N,-1/C,N,MCD5 $
116 LABEL ERROR2 $
117 PRTPARM4 //C,N,-2/C,N,MCD5 $
118 LABEL ERROR3 $
119 PRTPARM4 //C,N,-3/C,N,MCD5 $
120 LABEL P115 $
121 END $

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-10 ERRORS FOUND - EXECUTE NASTRAN PROGRAM